EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-2

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016	Workshops for RCRA Corrective
	Base X Option Period Number	

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Elem 1, par. 2.2 (pg. 5), par 2.8 (pg. 7), Elem 2

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 07/29/2015 To 07/16/2016

Comments:
The purpose of this action is to initiate Work Assignment No. 0-2 under Contract EP-W-15-011. The Contractor shall submit a work plan and budget estimate in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee:	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: John Heffelfinger (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-2192 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name: (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

Work Assignment SOW

Work Assignment Title: Support for Development and Delivery of Lean Events, Training, and Workshops for RCRA Corrective Action

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: 0-2

Estimated Period of Performance: Date of Issuance to July 16, 2016

Estimated Level of Effort: 400 hours

Key EPA Personnel:

Work Assignment COR (WA COR):
John Heffelfinger
Office of Policy/OSEM/ESD (1807T)
202-566-2192
heffelfinger,john@epa.gov

Contract Level COR:
Cheryl R. Brown
Office of Policy, Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

EPA Regions 3 and 7, along with the help of various state and industry stakeholders, held two (2) Lean-Kaizen events which analyzed the Resource Conservation and Recovery Act (RCRA) Corrective Action (CA) process. Specifically, these Lean events used value stream mapping to analyze the RCRA Facility Investigation (RFI) (Feb. 2013) and the Remedy Selection Process (RSP) (May 2014). The results from both Lean events were used by EPA to develop a set of tools for RCRA project managers to use which aim to facilitate more efficient RFIs and RSPs. The compendium of these tools is the manual titled RCRA Facilities Investigation Remedy Selection Track (FIRST)—A Toolbox for Corrective Action. Now that the initial Lean events have been completed and the RCRA FIRST manual has been finalized, efforts have further shifted to replicating the approach in other EPA regions and states.

The primary purpose of this work assignment is to assist EPA in planning, developing materials for, and delivering Lean events via RCRA Corrective Action (CA) trainings (1-day) and workshops/mini-Kaizen events [two (2) – three (3) days]. The one (1)-day trainings will be conducted by managers and staff from EPA Regions 3 and 7, and OSWER/Office of Resource Conservation and Recovery. In addition to the EPA staff,

the two (2) - three (3) day workshops/mini-Kaizen events will require the contractor to provide one (1) or more expert Lean facilitators to actively participate in the planning, event delivery, and follow-up after the Lean event. Under this work assignment, at least three (3) years of experience with the Lean process (Lean government) is required, preferably with an environmental agency (State or Federal) including the following:

- Lean concepts, tools and techniques;
- Scoping, planning, facilitating and/or leading projects using the Lean process; and
- Providing post-event support.

1. Trainings (various dates) – EPA anticipates holding a series of one (1)-day, in person, training events explaining how to use the RCRA FIRST User's Manual to its fullest extent. The training events will utilize already existing training materials, but will require the contractor to modify them in order to tailor them to the particular audience (e.g., with region and/or state specific information). The one (1)-day training will be targeted at regions, states, and other stakeholders who are receptive to the RCRA FIRST approach. EPA plans to begin this series of one (1)-day trainings in August 2015.

2. Workshops (various dates) – EPA anticipates holding at least two (2) workshops/mini-Kaizen events during FY2016 where EPA's RCRA FIRST implementation experts will travel to a region or state along with a certified, expert Lean facilitator(s) who will facilitate/conduct the workshop and engage regional and state staff. These workshops will include examining regional and state Corrective Action procedures over two (2)-three (3) days and seamlessly fitting the RCRA FIRST approach into their existing Corrective Action structure. The workshops will be used where participants need exposure to Lean principles and tools, and to help build an understanding about what problems exist in their current corrective action process and how the RCRA FIRST approach can used to address those problems. The first workshop is tentatively planned for October 2015.

Quality Assurance (QA) Requirements:

Check [ ] Yes or [X] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverable

shall be in Microsoft Word and/or other appropriate electronic format requested for the deliverable.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1 - Prepare Workplan

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task, and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the CO's comments, if required.

Deliverables and schedule under Task 1

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within _5_ calendar days of receipt of comments from the Contracting Officer, if required.

Task 2 - Develop Training Materials [Section IV, Element 1, para. 2.2 (pg. 5), para. 2.8 (pg. 7); Element 2, all paras. (pgs. 8-9)]

The contractor shall prepare draft and final materials as directed by the WA COR, in order to support the RCRA Corrective Action Trainings and Workshops/mini-Kaizen events described in Background and Purpose section above. Separate packages of materials will be developed for the one (1)-day Trainings and for the two (2) - three (3) day Workshops.
Such materials may include, but are not limited to:

-- PowerPoint Slides, containing text and visual displays of information
-- Desk-top, computer-based, interactive exercises for participants to use during the training and workshops
-- Pre-work/homework assignments for participants
-- Post-event materials, to promote participants' use of training and workshop results
-- Written talking points, scripts, and instructions to accompany all training and workshop materials
-- Surveys to help assess the effectiveness and quality of an event

Training and Workshop material content shall relate to RCRA Corrective Action as well as contain relevant Lean content, particularly for the Workshops/mini-Kaizen events.

Deliverables and schedule under Task 2

All products are to be delivered according to the specifications and timeline as directed by the WA COR:

2a. Draft training and workshop subject matter materials within 30 calendar days of issuing the technical directive.
2b. Revised drafts within 10 calendar days of receipt of comments from the COR on any draft materials.
2c. Final materials and files within 10 calendar days of receipt of comments from the COR.

Task 3 - Provide Planning Support for Lean Workshops/mini-Kaizen events – Including Pre-Work and Scoping Meetings [Section IV, Element 2, all paras. (pgs. 8-9)]

The contractor/expert Lean facilitator shall lead pre-work and scoping meetings (via conference call) with the WA COR, team leaders, appropriate senior managers, and selected participants for each workshop/event. These pre-work and scoping meetings will result in identification of Lean workshop scope, objectives, goals, format, and required data compilation by the participants. As needed, the contractor shall assist the Agency in developing a draft Project Charter and in recommending team members to participate in the Lean workshops. The contractor shall assist in planning, developing agenda, handouts and other materials for the pre-meetings, facilitating the meetings, and providing a summary report.

Deliverables and schedule under Task 3

3a. Kick-off meeting held within five (5) calendar days of being informed of potential Lean workshop/event.
3b. Draft agenda and schedule for scoping meeting within 5 calendar days of the scheduled scoping meeting.
3c. Scoping meetings that results in the identification of Lean workshop scope, objectives, goals, format, and data compilation needs shall be held within 15 calendar days of project kick-off meeting.
3d. The contractor shall provide a summary report on the scoping meeting(s) within five (5) calendar days after the meeting.

Task 4 – Facilitate Lean Workshops, Provide Coaching, and Post-Lean Workshop Follow-Up Support [Section IV, Element 2, all paras. (pgs. 8-9)]

The contractor/expert Lean facilitator shall facilitate at least two (2) RCRA Corrective Action workshops, which EPA anticipates will each consist of two (2) - three (3) day mini-Kaizen events. The workshops will be used to expose participants to Lean principles and tools, and to help build an understanding about what problems exist in their current corrective action process and how the RCRA FIRST approach can used to address those problems. The contractor/Lean facilitator shall assist in planning, developing, compiling and distributing agenda, handouts and other materials for each Lean workshop; facilitating the workshop; providing a summary report; and providing follow-up meeting facilitation as deemed necessary for each workshop.
This may include, but is not limited to:

1. Facilitate RCRA Corrective Action Lean workshops/events
2. Provide just-in-time Lean training to help acculturate EPA staff, states, and stakeholders to Lean philosophy, tools and techniques.
3. Coach and mentor EPA Lean workshop Team Leaders and facilitator trainees to include delivery of learning/skill building materials to support the Agency's objective of successfully implementing business process improvement methods.
4. Serving in the capacity of Facilitator to identify and manage change during the Lean workshops.
5. Work with EPA internal staff and management, as well as external stakeholders to develop a visual representation of the specified process flow and resulting improvements.
6. Provide coaching and consultation support to assist EPA and states in implementing action items identified during the Lean workshops.
7. Participate by phone or in person in follow-up meetings to be held after the Lean workshops.
8. Provide a summary report(s).

Deliverables and schedule under Task 4

4a. Draft agenda for Lean workshop within 30 calendar days of the event.
4b. Draft handouts and other materials for each Lean workshop within 20 days of the event.
4c. As directed by the COR, Draft Summary Report of Lean workshop is to be completed within 15 calendar days after completion of the workshop. This may include presentations, current state and ideal state value stream maps and proposed action plan forward.
4d. Final Summary Report of Lean event five (5) calendar days after receipt of revisions from the COR.

Summary of Deliverables and Dates:

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within _5_ calendar days of receipt of comments from the Contracting Officer, if required.

2a. Draft training and workshop subject matter materials within 30 calendar days of issuing the technical directive.
2b. Revised drafts within 10 calendar days of receipt of comments from the COR on any draft materials.
2c. Final materials and files within 10 calendar days of receipt of comments from the COR.

3a. Kick-off meeting held within five (5) calendar days of being informed of potential Lean workshop/event.
3b. Draft agenda and schedule for scoping meeting within 5 calendar days of the scheduled scoping meeting.
3c. Scoping meetings that results in the identification of Lean workshop scope, objectives, goals, format, and data compilation needs shall be held within 15 calendar days of project kick-off meeting.
3d. The contractor shall provide a summary report on the scoping meeting(s) within five (5) calendar days after the meeting.

4a. Draft agenda for Lean workshop within 30 calendar days of the event.
4b. Draft handouts and other materials for each Lean workshop within 20 days of the event.
4c. As directed by the COR, Draft Summary Report of Lean workshop is to be completed within 15 calendar days after completion of the workshop. This may include presentations, current state and ideal state value stream maps and proposed action plan forward.
4d. Final Summary Report of Lean event five (5) calendar days after receipt of revisions from the COR.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-03

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016	Lean Event Facilitation, Train
	Base X Option Period Number	

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Element 2, Para 1, Page 9

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 08/19/2015 To 07/16/2016

Comments:
The purpose of this action is to initiate Work Assignment 0-03 under Contract EP-W-15-011. The Contractor shall submit a work plan and budget estimate in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee:	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Scott Bowles (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-2208 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

Work Assignment SOW

Work Assignment Title: Lean Event Facilitation, Training and Coaching Support

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: WA 0-03

Estimated Period of Performance: **Date of Issuance to** July 16, 2016

Estimated Level of Effort: 1326_ hours

Key EPA Personnel:

Work Assignment COR (WA COR):

Scott Bowles
Office of Policy/OSEM
202-566-2208
bowles.scott@epa.gov

Contract Level COR:

Cheryl R. Brown
Office of Policy,
Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

The Government Performance and Results Act (GPRA) of 1993 and GPRA Modernization Act of 2010 hold all federal agencies accountable for how they use their resources to achieve results. The U.S. EPA created the Office of Strategic Environmental Management (formerly known as the National Center for Environmental Innovation) to bring creativity to bear on solving pressing environmental problems. The long term goals of the Office are to foster a performance-oriented regulatory system, promote environmental stewardship behavior and create a culture of creative problem solving.

Since 2005, the Office has been providing support to State environmental agencies and EPA on the use of business process improvement (BPI) methods such as Lean and Six Sigma to improve administrative and programmatic processes in government. Typically, within a few months of implementation of BPI methods (e.g., Lean Kaizen events), States and EPA have reduced the complexity, backlogs, unnecessary steps, approval cycles and other wastes of government processes leading to signification efficiencies (e.g., 50% reduction in permit review time, reducing RCRA Corrective Action process time from 19 to just over 5 years, etc.). These "Leaning" events, as well as, other Lean and BPI methods help eliminate waste and allow more staff time to be available for "mission critical" work, without sacrificing environmental protection goals or reducing value-

added processes. Additionally, these reductions of waste are accomplished by engaging staff and the audiences who "feel the pain", resulting in the added benefits of empowering staff, improving morale and increasing the transparency of the processes to stakeholders.

Moreover, EPA is the acknowledged leader in for producing Lean documents such as the "Lean in Government - A Practical Guide to Implementing Successful Lean initiatives at Environmental Agencies," also known as "The Lean Starter Kit," now in its third edition. EPA has also produced other guidances for metrics, Lean follow-up/implementation and for IT. EPA also has gained valuable experience in understanding and delivering numerous successful Lean "Kaizen" events, providing Value Stream Mapping, and an array of other Lean tools, training and methodology. Most recently EPA has begun developing and delivering training and coaching tools, hosting regional Lean summits, as well as, testing replication efforts as EPA and its environmental co-regulators move forward with Lean and other BPI tools/methods to improve organizational performance.

The purpose of this work assignment is to support the broader scale application of Lean and BPI tools and techniques of "Lean Government" within EPA, State environmental agencies, Federal agencies and local governments, as well as, advance "Lean Thinking" and change management. This work shall include: 1) delivery of a broad range of Lean and BPI facilitation support, typically 3-5 day Lean Kaizen events; 2) providing Lean and BPI training and coaching, including for two Lean Summits, as well as, other venues/audiences (e.g., Lean practitioners, executive leaders, etc.); and 3) Communications support for Lean program results and event/training/coaching support.

Expertise required for support of this work assignment include: Lean/Six Sigma applied to Lean Government in the areas of Lean and BPI facilitation, training, and coaching; development and reporting of meaningful Lean program results (e.g., assessing priority performance metrics for key audiences); application of strategy/policy deployment (Hoshin Kanri) coaching and practices; and ability to provide communications in written and electronic mediums for as high impact reports, presentations, and graphic representation.

Quality Assurance (QA) Requirements

Check [ ] Yes or [**X**] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal.

Work Assignment CORs will provide additional information here, if **Yes** is checked above.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverable shall be in Microsoft Word and/or other appropriate electronic format requested for the deliverable.

The WA COR is authorized to provide technical direction, in writing under this work assignment.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1 - Prepare Workplan

The Contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within _10_ calendar days of receipt of comments from the Contracting Officer, if required.

Task 2 - Lean and BPI Event Facilitation Support [Section/Element _2_, para(s) _1_, page(s) _9_]

The Contractor shall conduct Lean or other BPI facilitation events including preparation, facilitation and follow-up protocols to ensure implementation. The most typical event support is in the form of a three (3) to five (5) day "Kaizen" event. The Contractor shall provide the following support, based on technical direction from the WA COR:

Pre-work and Scoping for Lean/BPI Event
This and subsequent pre-work meeting(s) will address: preliminary project scope, potential format of the Lean event and desired outcomes for the Lean event; potential participants in scoping meetings and Lean event; possible meetings with managers or other individuals in preparation for scoping or Lean event; and other actions that would contribute to the success of this Lean event and implementation effort.

The Contractor shall conduct a kick-off meeting and coordinate with the WA COR, identified Lean team leader of the process within five (5) calendar days of being informed of a potential Lean event topic for the purpose of beginning the planning and scoping meetings preparation, as well as, the subsequent Lean events and follow-through implementation schedule. The Contractor shall lead pre-work and scoping meetings as outlined in Technical Direction by the WA COR, with designated team leader, appropriate senior managers, and event participants in each identified area. These pre-work and scoping meetings will result in identification and/or refinement of project scope, objectives, and goals, as well as, aspirational efficiencies and waste reductions that can be achieved in the process. The Contractor shall assist the designated team leader in selecting or identifying team members and/or balancing teams to ensure the success of those who participate in the event, as well as, ensuring the success of the actual event. The Contractor shall assist in planning, development of event documents (e.g., charter, agenda, handouts, and other EPA event and communication templates) for the event. The WA COR will secure a date and facility for all meetings.

Event Facilitation of Lean (Kaizen or other BPI approaches), and Event Follow-up

The Contractor shall facilitate the designated Lean Event, depending on results of scoping, a Kaizen, simple Value Stream Mapping event or other designated BPI approach or methodology. The Contractor shall assist in planning, developing, compiling and distributing agenda, handouts and other materials for the meeting; facilitating the meeting; guiding and/or providing a summary report and document development; and providing a template or schedule to assist with follow-up meeting(e.g., 30, 60, 90 day check-in meetings) deemed necessary for each event. This shall include, but is not limited to:

- Facilitating the Lean event, which shall take between three (3) and five (5) days;
- Providing just-in-time Lean training to help acculturate EPA staff and stakeholders to Lean philosophy, tools and techniques;
- Coaching and mentoring EPA Lean event Team Leader and facilitator trainees to include delivery of learning/skill building materials to support the Agency's objective of successfully implementing business process improvement methods;
- Identifying and managing change during the Lean event and sidebar meeting; and
- Working with EPA internal staff and management, as well as external stakeholders, to develop a visual representation of the specified process flow and resulting improvements.

Kaizen events shall also include, but not be limited to:

- Identifying sources of non-value added activities (waste) and prioritize future waste minimization, elimination, and improvement activities (e.g., current state showing "as is" process flow for the designated process);
- Establishing a vision for the future, including development of a plan to achieve the vision (e.g., future state map showing "to be" process flow for the designated process);
- An implementation plan to take advantage of proposed streamlining ideas and assure implementation;

- Developing a continuous improvement process for the Lean event team to use in periodic evaluation of improvement opportunities;
- Identifying, documenting and guide the development of event communication documents for the resulting "Leaned" process (e.g., PowerPoint event summary, revised charters, "participant satisfaction" charts, VSM, team photos, etc.)
- Participation by phone or in person in follow-up meetings to be held 30 calendar days, 60 calendar days and 90 calendar days after the Lean event;
- Assisting in planning, developing, compiling and distributing agenda, handouts, and other materials for meetings: facilitating the meetings; and
- Providing a summary debrief and/or report and the Lean event.

Deliverables and schedule under Task 2

Lean Pre-Work and Scoping

2a. Kick-off meeting held within five (5) calendar days of being formed of potential Lean event topic.

2b. Draft agenda and schedule for scoping meeting within 15 calendar business days of the scheduled scoping meeting.

2c. Hosting/leading scoping meetings which results in the identification and documentation of project scope, objectives, goals, and agreed upon metric shall be held within 45 calendar days of project kick-off meeting.

2d. The Contractor shall provide a final summary "report" (e.g., event charters and other key documents) on the scoping meeting within five (5) calendar days of receipt of comments.

Lean Event Facilitation and Follow-up

2e. Provide agenda for each event within 15 calendar days of the scheduled event.

2f. Conduct/facilitate the Lean or BPI event as identified/agreed upon in the scoping stage.

2g. Draft Summary "Report" of each Lean event is to be completed within 15 calendar days of completion of the Lean event.

2h. Final Summary "Report" of each Lean event five (5) calendar days after receipt of revisions from the WA COR, including presentations, current state and ideal state value stream maps and proposed action plan forward.

2i. Provide guidance and facilitate event's 30-60-90 follow-up/implementation meetings as scheduled.

Assumptions: For the purpose of estimating support for this task the Contractor shall assume facilitation needs of three (3) five (5) Lean events, ranging in length from three (3) to five (5) days. These events may range from a value stream mapping exercise to a full five (5) day Kaizen event The WAM will provide technical direction with specific process subject area, program office lead and other event information. The Contractor shall assume facilitated events are in Washington, DC. The Contractor should not assume room/facilities acquisition in assumptions.

Task 3 - Lean Training, Coaching and Mentoring Support [Section/Element _2_, para(s) _1 & 2_, page(s) _9_]

The Contractor shall conduct Lean or other BPI facilitation training and coaching activities in order to meet the ongoing needs of EPA staff and managers who continue the "Lean journey" and continually strive to improve their knowledge, skills and capacity to implement Lean work. OSEM has developed several introductory courses to introduce EPA staff to the basic Lean and BPI principles, tools and techniques which provide a Lean overview (1.5 hour) and basic introductory (6 hour Lean 101) concepts and terminology. While these efforts provide a solid foundation for beginning the Lean journey, EPA staff and managers need further training, coaching and mentoring to expand their Lean and BPI knowledge, skills and capacity. The objective of this support is to advance the Lean body of expertise and implementation and, ultimately, help further drive the culture of EPA toward an ethic of continuous improvement.

Much of the Lean and BPI knowledge, tools and information already exist, however, the applications of this body of work to EPA requires a strategic approach to ensure that training is utilized and improved upon to address the Agency's priority issues and build the capacity of its employees. The Contractor shall assist EPA in providing (and developing where necessary) Lean and BPI training, coaching and mentoring for staff and management which shall include, but may not be limited to: 1) improving the awareness of staff and managers new to Lean, 2) providing project/effort specific training for individuals who will be involved in or play some role in a continuous process improvement project; 3) equip managers, process owners, project sponsors, Lean Advocates and senior managers with information, skills and "know-how" to create and support a culture of continuous improvement; and 4) provide specialized coaching support for key staff and senior career managers on strategy/policy deployment and executive coaching to assist in aligning program goals and strategic planning--with the goal of eliminating waste that comes from inconsistent direction and poor communication. The Contractor shall provide the outlined support cited above, based on technical direction from the WA COR.

Deliverables and schedule under Task 3

3a. Kick-off meeting held within five (14) calendar days of receiving work assignment to discuss with the WA COR the basic outline of training, coaching and mentoring needs and further assessment strategies to deliver a strategic approach to this task in the Workplan.

3b. Within 14 days of Workplan approval, develop and begin assessment of target audience either through interviews, discussions and or other available information (e.g.,

NPM level value stream mapping) to assessment of training needs, with the aim of further refining/detailing the initial Workplan outline for training, coaching and mentoring.
3c. Provide training, coaching and mentoring to EPA audiences as directed by the WA COR and based on the assessment efforts, or as opportunities aries (e.g., Regional Summits, conference, senior executive meetings, etc.)
3d. Provide monthly training, coaching and mentoring updates by meeting/conference call training, coaching and mentoring deployment progress including opportunities, challenges, audience need and unmet or met objectives.
3e. Provide summary briefing with recommendations for further training, coaching and mentoring development within six months.

Assumptions: For the purpose of estimating support for this task the Contractor shall assume a basic range of training, coaching and mentoring delivery (e.g., Regional Summit events and other meetings) range: 20 full-day deliveries; 40 half-days; and up to 250 1-hour (or tailored in 1hour multiples)sessions. The Contractor shall assume travel to three EPA regional office (Philadelphia, Dallas, and one TBD), otherwise all other activity will be in the Washington, DC area. The Contractor should not assume room/facilities acquisition in assumptions.

Task 4 - Lean Communications Support [Section/Element _2_, para(s) _1 & 2_, page(s) _9_]

The Contractor shall conduct or provide Lean or other BPI communications as directed by the WA COR for the purpose to highlight (market and/or brief) audiences and to generally serve as educational venues to showcase, results and other information on Lean and BPI activities. This includes but is not limited to: Lean flyers, posters, briefings and other graphic communications products.

Deliverables and schedule under Task 4
4a. As directed by the WA COR provide communication support for important activities (e.g., Regional Lean Summits, ECOS meetings, etc.)
4b. Provide recommendations for communication product support as requested by WA COR.

Assumptions: For the purpose of estimating support for this task the Contractor shall assume a basic range of 10 special event posters, flyers and communications to support up to four meetings (e.g., Regional Lean Summits, etc.) and 1-2 briefings. No travel is required.

Summary of Deliverables and Dates:

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within 5 calendar days of receipt of comments from the, if required.

Deliverables and schedule under Task 2

Pre-Work and Scoping

2a. Kick-off meeting held within five (5) calendar days of being formed of potential Lean event topic.
2b. Draft agenda and schedule for scoping meeting within 15 calendar business days of the scheduled scoping meeting.
2c. Hosting/leading scoping meetings which results in the identification and documentation of project scope, objectives, goals, and agreed upon metric shall be held within 45 calendar days of project kick-off meeting.
2d. The contractor shall provide a final summary "report" (e.g., event charters and other key documents) on the scoping meeting within five (5) calendar days of receipt of comments.

Event Facilitation and Follow-up

2e. Provide agenda for each event within 15 calendar days of the scheduled event.
2f. Conduct/facilitate the Lean or BPI event as identified/agreed upon in the scoping stage.
2g. Draft Summary "Report" of each Lean event is to be completed within 15 calendar days of completion of the Lean event.
2h. Final Summary "Report" of each Lean event five (5) calendar days after receipt of revisions from the WA COR, including presentations, current state and ideal state value stream maps and proposed action plan forward.
2i. Provide guidance and facilitate event's 30-60-90 follow-up/implementation meetings as scheduled.

Deliverables and schedule under Task 3

3a. Kick-off meeting held within five (14) calendar days of receiving work assignment to discuss with the WA COR the basic outline of training, coaching and mentoring needs and further assessment strategies to deliver a strategic approach to this task in the Workplan.
3b. Within 14 days of Workplan approval, develop and begin assessment of target audience either through interviews, discussions and or other available information (e.g., NPM level value stream mapping) to assessment of training needs, with the aim of further refining/detailing the initial Workplan outline for training, coaching and mentoring.
3c. Provide training, coaching and mentoring to EPA audiences as directed by the WA COR and based on the assessment efforts, or as opportunities aries (e.g., Regional Summits, conference, senior executive meetings, etc.)
3d. Provide monthly training, coaching and mentoring updates by meeting/conference call training, coaching and mentoring deployment progress including opportunities, challenges, audience need and unmet or met objectives.
3e. Provide summary briefing with recommendations for further training, coaching and

mentoring development within six months.

Deliverables and schedule under Task 4

4a**.** As directed by the WA COR provide communication support for important activities (e.g., Regional Lean Summits, ECOS meetings, etc.)

4b. Provide recommendations for communication product support as requested by WA COR.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-03

☐ Other ☒ Amendment Number: 000001

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016 Base X Option Period Number	Lean Event Facilitation, Train

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Element 2, Para 1, Page 9

Purpose:
- ☐ Work Assignment
- ☒ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 08/19/2015 To 07/16/2016

Comments:
The purpose of this action under Work Assignment 0-03 is to increase the Level of Effort of Tasks 3 and 4 for additional training support of 2 additional Regions hosting lean summits. The Contractor shall submit a revised work plan and estimated budget in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee:	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Scott Bowles (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-2208 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Jennifer Kuhn (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-0844 FAX Number:

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-03

☐ Other ☒ Amendment Number: 000002

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016 Base X Option Period Number	Lean Event Facilitation, Train

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Element 2, Para 1, Page 9

Purpose:
- ☐ Work Assignment
- ☒ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 08/19/2015 To 07/16/2016

Comments:
The purpose of this action under work assignment 0-03 is to assign Kimberly Greens-Goldsborough as WA COR and Darlene Byrd as Alt WA COR. Currently Darlene Byrd will act as primary COR until May 1, 2016.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

SFO (*Max 2*) ☐

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

	Contract Period:	Cost/Fee:	LOE:
	07/17/2015 To 07/16/2016		
This Action:			
Total:			

Work Plan / Cost Estimate Approvals

	Cost/Fee	LOE:
Contractor WP Dated:	Cost/Fee	LOE:
Cumulative Approved:	Cost/Fee	LOE:

Work Assignment Manager Name: Kimberly Green-Goldsborough (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-2355 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name: (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-05

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016	Lean Case Studies and Posters
	Base X Option Period Number	

Contractor: INDUSTRIAL ECONOMICS, INCORPORATED

Specify Section and paragraph of Contract SOW: Element 2_, para(s) __1-3___, page(s) _8-9

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 08/26/2015 To 07/16/2016

Comments:
The purpose of this action is to initiate Work Assignment 0-05 under IEc Contract EP-W-15-011. The Contractor shall submit a work plan and budget estimate in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee:	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Terell Lasane (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0705 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name: (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

Work Assignment SOW

Work Assignment Title: Lean Case Studies and Posters

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: 0-05
Estimated Period of Performance: **Date of Issuance to** __July 16, 2016_____

Estimated Level of Effort: __150__ hours

Key EPA Personnel:

Work Assignment COR (WA COR):

Terell P. Lasane
Office of Strategic Environmental Management
1807T
(202) 566-0705
(202) 566-2300

Contract Level COR:

Cheryl R. Brown
Office of Policy, Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

The Government Performance and Results Act (GPRA) of 1993 and GPRA Modernization Act of 2010 hold all federal agencies accountable for how they use their resources to achieve results. It requires: (1) strategic planning, (2) the development of measures to assess program performance and progress, (3) that information is reported to the public, and (4) that agencies develop a schedule of planned and completed program evaluations.

Within the Office of Policy (OP)'s Office of Strategic Environmental Management is the Evaluation Support Division (ESD). ESD provides leadership, analysis, coordination, and decision-making support to maintain and strengthen EPA's effectiveness. Since 2013 ESD has provided support to State Environmental Agencies and EPA to broaden the use of innovative process improvement tools and techniques such as Lean and Six Sigma. EPA provides a wealth of information about Lean Government on the EPA lean web site, including highly acclaimed documents such as "Lean in Government - A Practical Guide to Implementing Successful Lean initiatives at Environmental Agencies," also known as "The Lean Starter Kit" as well as Fact Sheets, Lean in Air Permitting Guide, and many other resources.

These Lean Government tools have supported the growing body of experience within EPA in planning and implementing Lean events. This work assignment will support broader and more effective implementation of lean government tools and technique by capturing and analyzing the experiences of lean implementation efforts using a case study format and posters

The COR is authorized to provide written technical direction to the Contractor (with a courtesy copy to the Contracting Officer and Contract Level COR) to clarify requirements already specified in this Statement of Work.

Work on this work assignment shall begin on date of award and end July 16, 2016. This project does not generate environmental data using models with their technical proposal.

Tasks and Deliverables:

The WA COR will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverable shall be in 508-compliant .pdf and Microsoft PowerPoint for the deliverable.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1 - Prepare Workplan

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within 5 calendar days of receipt of comments from the Contracting Officer, if required.

TASK 2: EVENT REVIEW AND PRODUCTION OF CASE STUDIES/POSTERS FOR LEAN EVENTS

2-1 PARTICIPATE IN A CONFERENCE CALL. The contractor shall participate in a conference call with the COR and other Agency staff to clarify the approach to creating Lean Case Studies and Posters. The WA COR shall contact the contractor and provide a time and date for the conference call. For the purposes of estimating the, the contractor shall assume one one-hour conference call. PLEASE NOTE that this process is iterative and will be the protocol undertaken for each case study or poster that is being featured. Although the time spent on each Lean event will vary by scope and complexity of the event, the work assignment will support the maximum number of case studies/posters that can be produced with the certain budget allocation.

2-2 REVIEW CASE STUDY/POSTER TEMPLATES AND INTERVIEW EVENT LEADS. The WA COR will provide the contractor with relevant templates for the case study and posters, internet links and essential documents via technical direction to become familiar with the Lean event that is to be featured for each case study or poster. In addition, the contractor shall contact key event personnel and the Lean Leaders who sponsored each Lean event and led the event facilitation. The amount of time needed to complete the poster or case study will depend on the scope of the project, the degree to which the event contact has completely filled out the template provided, and the complexity of the project. On average, these calls will be one hour calls with the event leads and the WA COR.

2-3 PREPARE DRAFT CASE STUDIES/POSTERS. Based on the review of poster and case study templates and interviews with Lean event leads (2-2) the contractor shall prepare a draft case study/poster outline which will summarize the Lean event. The contractor shall present each draft to the WA COR for initial review and to forward to the sponsoring event leads.

2-4 PREPARE FINAL CASE STUDIES/POSTERS. Based on feedback from the event contacts and after vetting drafts through EPA management, the contractor shall edit and refine the case study or poster for final review by the sponsoring office. The WA COR will issue technical direction to initiate this task.

2-5 PRODUCE LARGE FORMAT POSTERS AND SUBMIT POSTERS FOR INTRANET POSTING. After receiving final review from the WA COR and with consultation from the key event contact and manager, the contractor shall place the case study/poster in a 508-compliant form that will allow posting to the intranet and that will allow production to a large format poster than may be displayed by the Lean Team at Headquarters and to the program/region offices that sponsored each event.

Deliverables and schedule under Task 2
2a. Draft Case Studies Poster (7 days after case study call with event contact)
2b. Final Case Studies/Poster (7 days after receiving comments from event sponsor via technical direction from the WA COR)
2c. Poster for Intranet Posting/Large Poster Display (10 days after getting approval for the final case study/poster from the WA COR.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-06

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016	Community Performance Measurem
	Base X Option Period Number	

Contractor: INDUSTRIAL ECONOMICS, INCORPORATED

Specify Section and paragraph of Contract SOW: Element 1 (1.1, and 1.2.4-7) para(s) 2, page(s) 4-

Purpose:
- ☒ Work Assignment
- ☐ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 08/27/2015 To 07/16/2016

Comments:
The purpose of this action is to initiate Work Assignment 0-06 under IEc Contract EP-W-15-011. The Contractor shall submit a work plan and budget estimate in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee:	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Judy Lieberman (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-8638 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name: (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

Work Assignment Statement of Work (SOW)

Work Assignment Title: Community Performance Measurement Support

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: 0-06

Estimated Period of Performance: **Date of Issuance to** 7-16-2016

Estimated Level of Effort: 2,130 hours

Work Assignment COR (WA COR):

Name: Judy Lieberman
Telephone: 202-564-8638
Office/Mail address: OCFO/OPAA (mail code: 2722A)
1200 Pennsylvania, NW, Washington, DC 20460
Fax No: 202 564-1808

Alternate Work Assignment COR:

Name: Dominic Nelson
Telephone: 202-564-0106
Office/Mail address: OCFO/OPAA (mail code: 2722A)
1200 Pennsylvania, NW, Washington, DC 20460
Fax No: 202 564-0106

Contract Level COR:

Cheryl R. Brown
Office of Policy, Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

The purpose of this Project Plan is to assist the EPA in the development of performance metrics for communities as part of the "Making a Visible Difference in Communities" Cross-Agency Strategy and to develop performance metrics to support EPA's EJ 2020 plan communities with environmental justice concerns. Consistent with GPRAMA requirements, EPA has developed a results-based performance management system that includes operational, annual, and long-term measures to evaluate and communicate program performance and support programmatic and agency-wide decision-making. To support annual and long-term planning and assessment, EPA holds mid-year and end-of-year performance reviews with the Deputy Administrator, Chief Financial Officer, and other senior leadership. These reviews assess progress of performance measures and other evidence to support senior leadership decision making.

The WA COR is authorized to provide written technical direction (with a copy to the Contracting Officer and Contract Level COR) to the Contractor to clarify requirements already specified in this Statement of Work. The WA COR will provide written technical direction on the due dates for each specific deliverable.

Quality Assurance (QA) Requirements

Check [X] Yes or [ ] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or for any project which generates environmental data using models with their technical proposal.

Contractor shall develop a simple QAPP related to developing questions for a survey to gauge community feedback.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverable shall be in Microsoft Word and/or other appropriate electronic format requested for the deliverable.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall be in compliance with the Information Collection Request requirements in the performance of this work assignment if applicable. The Contractor shall not duplicate any work performed previously.

Task 1 - Prepare Workplan

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

Deliverables and schedule under Task 1

	Deliverable	Schedule
1a	**Workplan**	**Within 15 calendar days of receipt of work assignment.**
1b	**Revised Workplan**	**Within 4 calendar days of receipt of comments from the Contracting Officer, if required.**

Task 2 - SUPPORT FOR PERFORMANCE MEASUREMENT DEVELOPMENT - [Section IV, Element 1 (1.1, and 1.2.4-7) para(s) 2, page(s) 4-7] [Also: Section IV, Element 3 (3.1-6), para(s) 1, page(s) 10-13]

The purpose of this task is to assist the EPA in the development of performance metrics for communities as part of the "Making a Visible Difference in Communities" Cross-Agency Strategy and to develop performance metrics to support EPA's EJ 2020 plan communities with environmental justice concerns.

Making a Visible Difference in Communities - Performance Metrics

The contractor shall assist an Agency-wide Measurement Team to support the development of performance measures for EPA's Making a Visible Difference in Communities (MVD) Cross Agency Strategy (CAS). The Contractor shall provide measurement support for task 1 of the MVD FY15 Action Plan, in which EPA regional offices implemented 50 MVD community-based projects primarily located in over-burdened and underserved communities. The contractor shall also support longer-term "community of practice" actions, under task 2 of the MVD FY15 Action Plan, that apply more broadly to how EPA measures the success of its community-based projects and EPA community-based work in general for FY16 and beyond. The contractor also shall support EPA's efforts to improve national metrics on the impacts of EPA efforts on environmentally overburdened, underserved and economically distressed communities including measuring "customer satisfaction." In this case "customer satisfaction," refers to the community perspective at different stages of EPA service delivery on outcomes that matter to communities.

Under the actions of the 50 MVD FY15 community projects, the contractor shall utilize the existing EPA MVD Measurement Team project scoping document and database* that identifies MVD project measures and measurement gaps, and work with relevant EPA regional staff to provide in-depth analysis, applying the Office of Policy 2013 document "Flexible Framework for Measurement of EPA's Community-Based Initiatives," to a subset of up to 20 of the MVD FY15 community projects. Through this work, the contractor shall interview key project staff and use interviews and supporting research to help fill in previously identified measurement gaps in the measurement team scoping document and database, and determine the extent to which selected community projects plan to report project progress under the categories listed in the OP 2013 "Flexible Framework for Measurement of EPA's Community-Based Initiatives" (Flexible Framework). Based on the interviews with relevant regional staff, the contractor shall make recommendations for efficient methods for calculating additional quantitative and qualitative environmental, economic, and social measures. The contractor shall also make recommendations for utilizing more consistent measures and measurement methodologies where inconsistencies are identified. Where feasible, the contractor shall coordinate with OP and OEJ to recommend ways that an EJ lens can be applied to the 50 MVD projects, including community satisfaction feedback measures that demonstrate project "success" from the community's perspective. The contractor assessment and recommendations may include (but not limited to) identification and evaluation of the following for each selected project:

- Planned input, output, and outcome metrics under each reporting category (environmental, social, and economic) of the EPA Flexible Framework.
- Performance measures to be used by federal partners for the MVD projects.
- Logic models or use of logical modeling concepts during project planning.
- Key gaps in performance data, metrics, baseline data, and benchmarks, and how they might be addressed.
- The most appropriate qualitative measures to help fill measurement gaps for the MVD community projects and better tell the story of "Making a Visible Difference."
- Implementation steps each project manager could take for more complete measurement under each category of the Flexible Framework.

The contractor shall also evaluate and provide recommendations on the following:

- What MVD project measurement "clusters" can be aggregated, especially for mapping purposes in EPA's Geoplatform.
- How to best aggregate, analyze and communicate performance measures and data from individual community projects.
- What existing reporting tool/methods might be utilized/enhanced for entering project performance measure data (e.g., within Sharepoint).
- Project performance input, data record, and reporting formats and contents.
- How EPA project managers will approach strategic planning and strategic decision-making differently with the broader suite of measures reported in the updated integrated Flexible Framework in order to maximize the benefits across all category areas: environmental, economic, and social, as well as maximize EJ outcomes where needed.

The Contractor shall summarize in a lessons learned document the findings and results from the indepth analysis of the subset of up to 20 MVD projects and general analyses of the 50 MVD projects, as well as evaluate MVD's attempt to utilize the OP Flexible Framework. The Summary document shall not exceed 30 pages (excluding appendices) and include a short (1-2 page) executive summary.

The contractor shall also provide data entry for MVD 50 project data not already entered into the MVD database system*, or where additional fields of data were subsequently added to the MVD reporting template and database by EPA.

To support the longer-term community of practice actions, the contractor shall:

- Use lessons learned from the 50 MVD projects, to update the OP Flexible Framework, to make it more useful to EPA community-related project managers, as well as promote application of an EJ lens.
- Revise the preliminary version of the Sharepoint-based MVD measurement reporting tool and guidance that allows EPA project managers to better track progress of all EPA community-based projects. Reporting

capabilities of the tool and guidance shall also provide managers with better strategic decision-management capabilities, and support performance reports and Geoplatform-based mapping that staff can use to convey project progress to internal and external audiences, especially via social media. Tool development should consider Region 1's community Action Tracker (CAT), and the OP technical assistance tracking tool imbedded in EPA's Geogrants tool as a models for development. The tool and user guide should include a discussion on how project tracking syncs with National Program Manager (NPM) guidance and Annual Commitments (in the Annual Commitment System), as well as the Annual Planning and Budgeting reporting requirements. Some consideration should also be given to how EPA measurement work compliments ongoing federal-wide performance measurement improvement efforts.

- Make broad recommendations on incorporating measures into the MVD projects not selected for in-depth analysis, and on steps to take before future community-based work to incorporate of performance evaluation planning into projects.
- Suggest future actions on community measures and how they may support implementation of EJ 2020 (e.g., how can communities work move from measures which are primarily outputs-oriented to outcomes-oriented, what are different ways to pursue community measures work such as measures for EPA activities vs. tools and partnerships that empower communities to measure progress).

For this task EPA anticipates the contractor shall travel to Washington, D.C. twice for 2 days for two contractor staff.

* URL access to MVD database cited under task 2 above to be used by contractor:
https://outlook.office365.com/owa/service.svc/s/GetFileAttachment?id=AAMkAGExMTk2ZGJmLWNlOTQtNDUwMC1iZmMxLTkyMThkZjFjOWEwZABGAAAAAAA5q%2FfuScQATakHACv%2Fq2IPBwAIHb%2BPAwXOSoXid9nq74nLAAAAn16dAADOKgtVBrkMSqnCneEbHxPQAAH%2FXmrpAAABEgAQABtfIlu%2FJZdMnZty6qu8wew%3D&X-OWA-CANARY=99VecIUBakWNzTeUiu9kvVBKOfqvqtIYwfXCLY9GxL-h-uAp1tktDrvl8-BFvUjfIlc172Q7obk.

Deliverables and schedule under Task 2

	Deliverable	Schedule
2a	**Introductory meeting with EPA Agency-wide Measurement Team**	**Within 12 business days after WA initiation.**
2b	**Introductory meeting with OEJ**	**Within 12 business days after WA initiation.**
2c	**Set up and conduct a 1-hour-each consultation calls with project leads for each of up to 20 MVD projects selected by regions and by the measurement team. (up to 20 one-hour calls). Support includes contractor data entry of up to 50 MVD regional FY15 templates.**	**Within 40 calendar days of Introductory meetings under 2a & 2b above.**
2d	**Draft MVD Projects Framework Comparison Report on up to 20 MVD projects, including EJ elements and lessons learned during the process of developing community measures tools. Report shall not exceed 30 pages and should include a one page executive summary.**	**Within 30 calendar days of completion of consultation calls under 2c above.**
2e	**Final MVD Projects Framework Comparison Report and one page executive summary.**	**Within 10 calendar days of receiving EPA comments on task 2d from the COR**
2f	**Meeting and presentation to EPA on Final report and initial recommendations for flexible framework revision**	**TBD, as directed by the WA COR**
2g	**Provide up to 30 hours of data entry support for the 50 MVD community projects.**	**TBD, as directed by the WA COR**
2f	**Draft Update to OP Flexible Framework for Measurement of EPA's Community-Based Initiatives' report, with EJ elements, including one page summary of changes.**	**Within 30 calendar days of meeting under 2f above.**
2g	**Final Update to OP Flexible Framework, including one page summary of changes.**	**Within 10 calendar days of receiving EPA comments on task 2f from the WA COR**
2h	**Draft Tool and User guide for Sharepoint-based MVD measurement reporting tool.**	**TBD, as directed by the WA COR**

2i	**Final Sharepoint-based MVD community measurement tool and User guide**	**Within 30 calendar days of receiving EPA comments from the COR**
2j	**Draft Logic Model and summary report**	**Within 60 calendar days of Introductory meetings under 2a & 2b above.**
2k	**Final Logic and summary report**	**Within 10 calendar days of receiving EPA comments on task 2j from the COR**
2l	**Draft EJ 2020 Performance Measure section of integrated community Framework and Guidance**	**TBD, as directed by the COR**
2m	**Final Draft EJ 2020 section of integrated community Performance Measure Framework and Guidance**	**Within 10 calendar days of receiving EPA comments on task 2l from the COR**

Task 3 - SUPPORT FOR ENVIRONMENTAL JUSTICE PERFORMANCE METRICS - [Section IV, Element 1 (1.1, and 1.2.4-7) para(s) 2, page(s) 4-7] [Also: Section IV, Element 3 (3.1-6), para(s) 1, page(s) 10-13]

As a part of EJ 2020, EPA's strategic plan for integrating environmental justice into the federal government, EPA's Office of Chief Financial Officer's (OFCO), Office of Environmental Justice (OEJ), and Region 9 have taken the lead on developing pilot national program measures that disaggregate and prioritize vulnerable subpopulations, The purpose of this task is to support the OEJ and OFCO's efforts to provide guidance and technical assistance to EPA programs in developing a standardized framework for this effort. The contractor shall assist in the development of EJ 2020 measures in three key areas: development of national environmental outcomes measures, ensuring an EJ lens in MVD and other community-level measures as they develop and mature, and development of intermediate policy implementation outcomes measures (such as the consideration of EJ in national rules). These efforts include:

- Developing an agency environmental justice evaluation framework that uses a logic model approach to help the agency demonstrate progress on outcomes that matter to communities with EJ concerns. This framework will focus on and illustrate the relationships between national environmental outcomes measures, community-level measures, intermediate policy implementation outcomes measures other inputs, activities, outputs and short-term and intermediate outcomes. As part of this task, the contractor shall provide recommendations on developing definitions on key terms to achieve a common vocabulary for articulating these concepts and clarify the importance of these measures for demonstrating progress on outcomes that matter to communities with EJ concerns.
- Evaluating national environmental outcomes measures proposed for inclusion in EJ 2020 plan and develop recommendations for their enhancement. In addition, the contractor shall provide recommendation on ways EPA programs can build on them to improve the program's capacity to integrate environmental justice into the development of national environmental outcomes measures. The contractor also shall identify gaps in EPA's current EJ performance measures and data and develop recommendations for addressing them through use of new tools, including EJSCREEN.
- Proposing survey questions that can be used in place-based work in distressed communities to evaluate how EPA does its work and whether it is moving in the right direction towards addressing each community's needs and concerns.
- The contractor shall prepare a summary report with the proposed agency EJ evaluation framework and findings and recommendations, not to exceed 30 pages (excluding appendices), including a short (2-3 page) executive summary.

Deliverables and schedule under Task 3

	Deliverable	**Schedule**
3a	**Introductory meeting with EJ 2020 Staff**	**Within 12 business days after WA initiation.**
3b	**Develop draft outline of summary report with initial findings and recommendations**	**Within 60 business days after meeting under 3a.**

3c	**Draft EJ Evaluation Framework Report. Report shall include a one page executive summary.**	**Within 120 business days after completion of task 3b.**
3d	**Final EJ Evaluation Framework Report and one page executive summary.**	**Within 10 calendar days of receiving EPA comments from the WA COR**

Summary of Deliverables and Dates for EP-W-15-011, WA XXX:

	Deliverable	Schedule
1a	Workplan	Within 15 calendar days of receipt of work assignment.
1b	Revised Workplan	within 4 calendar days of receipt of comments from the Contracting Officer, if required.
2a	Introductory meeting with EPA Agency-wide Measurement Team	Within 12 business days after WA initiation.
2b	Introductory meeting with OEJ	Within 12 business days after WA initiation.
2c	Set up and conduct a 1-hour-each consultation calls with project leads for each of up to 20 MVD projects selected by regions and by the measurement team. (up to 20 one-hour calls). Support includes contractor data entry of up to 50 MVD regional FY15 templates.	Within 40 calendar days of Introductory meetings under 2a & 2b above.
2d	Draft MVD Projects Framework Comparison Report on up to 20 MVD projects, including EJ elements and lessons learned during the process of developing community measures tools. Report shall not exceed 30 pages and should include a one page executive summary.	Within 30 calendar days of completion of consultation calls under 2c above.
2e	Final MVD Projects Framework Comparison Report and one page executive summary.	Within 10 calendar days of receiving EPA comments on task 2d from the COR
2f	Meeting and presentation to EPA on Final report and initial recommendations for flexible framework revision	TBD, as directed by the COR
2g	Provide up to 30 hours of data entry support for the 50 MVD community projects.	TBD, as directed by the COR
2f	Draft Update to OP Flexible Framework for Measurement of EPA's Community-Based Initiatives' report, with EJ elements, including one page summary of changes.	Within 30 calendar days of meeting under 2f above.
2g	Final Update to OP Flexible Framework, including one page summary of changes.	Within 10 calendar days of receiving EPA comments on task 2f from the COR
2h	Draft Tool and User guide for Sharepoint-based MVD measurement reporting tool.	TBD, as directed by the COR
2i	Final Sharepoint-based MVD community measurement tool and User guide	Within 30 calendar days of receiving EPA comments from the COR
2j	Draft Logic Model and summary report	Within 60 calendar days of Introductory meetings under 2a & 2b above.
2k	Final Logic and summary report	Within 10 calendar days of receiving EPA comments on task 2j from the COR
2l	Draft EJ 2020 Performance Measure section of integrated community Framework and Guidance	TBD, as directed by the COR
2m	Final Draft EJ 2020 section of integrated community Performance Measure Framework and Guidance	Within 10 calendar days of receiving EPA comments on task 2l from the COR
3a	Introductory meeting with EJ 2020 Staff	Within 12 business days after WA initiation.
3b	Develop draft outline of summary report with initial findings and recommendations	Within 60 business days after meeting under 3a.

3c	**Draft EJ Evaluation Framework Report. Report shall include a one page executive summary.**	**Within 120 business days after completion of task 3b.**
3d	**Final EJ Evaluation Framework Report and one page executive summary.**	**Within 10 calendar days of receiving EPA comments from the COR**

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-07

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016	OECA Lean Facilitation of the
	Base X Option Period Number	

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Element 2, Para 1, Page 9

Purpose:
- ☒ Work Assignment
- ☐ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 09/10/2015 To 07/16/2016

Comments:
The purpose of this action is to initiate Work Assignment 0-07 under IEC Contract EP-W-15-011. The Contractor shall submit a work plan and estimated budget in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee:	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Terell Lasane (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0705 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

Work Assignment SOW

Work Assignment Title: OECA Lean Facilitation of the Smart Tools Events

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: WA 0-07

Estimated Period of Performance: **Date of Issuance to** July 16, 2016

Estimated Level of Effort: 238 hours

Key EPA Personnel:

Work Assignment COR (WA COR):

Terell P. Lasane
Office of Policy/OSEM
202-566-0705
lasane.terell@epa.gov

Contract Level COR:

Cheryl R. Brown
Office of Policy,
Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

The Government Performance and Results Act (GPRA) of 1993 and GPRA Modernization Act of 2010 hold all federal agencies accountable for how they use their resources to achieve results. The U.S. EPA created the Office of Strategic Environmental Management (formerly known as the National Center for Environmental Innovation) to bring creativity to bear on solving pressing environmental problems. The long term goals of the Office are to foster a performance-oriented regulatory system, promote environmental stewardship behavior and create a culture of creative problem solving.

Since 2005, the Office has been providing support to State environmental agencies and EPA on the use of business process improvement (BPI) methods such as Lean and Six Sigma to improve administrative and programmatic processes in government. Typically, within a few months of implementation of BPI methods (e.g., Lean Kaizen events), States and EPA have reduced the complexity, backlogs, unnecessary steps, approval cycles and other wastes of government processes leading to signification efficiencies (e.g., 50% reduction in permit review time, reducing RCRA Corrective Action process time from 19 to just over five years, etc.). These "Leaning" events, as well as, other Lean and BPI methods help eliminate waste and allow more staff time to be available for "mission critical" work, without sacrificing environmental protection goals or reducing value-

added processes. Additionally, these reductions of waste are accomplished by engaging staff and the audiences who "feel the pain", resulting in the added benefits of empowering staff, improving morale and increasing the transparency of the processes to stakeholders.

The purpose of this work assignment is to support the broader scale application of Lean and BPI tools and techniques of "Lean Government" within EPA's Office of Enforcement and Compliance Assurance (OECA's) with respect to the Smart Tools process. This effort is one of several that supports OSEM mission of advancing "Lean Thinking" and change management. This work shall include: 1) engagement with OECA on the pre-work needed to carry out a four (4) – five (5) day Lean Kaizen events on Smart Tools; 2) providing Lean and BPI training to OECA staff team members involved in this event and 3) follow-up implementation work on the event

Expertise required for support of this work assignment include: Lean/Six Sigma applied to Lean Government in the areas of Lean and BPI facilitation, training, and coaching; development and reporting of meaningful Lean program results (e.g., assessing priority performance metrics for key audiences); application of strategy/policy deployment (Hoshin Kanri) coaching and practices; and ability to provide communications in written and electronic mediums for as high impact reports, presentations, and graphic representation.

Quality Assurance (QA) Requirements

Check [ ] Yes or [**X**] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal.

Work Assignment CORs will provide additional information here, if **Yes** is checked above.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverable shall be in Microsoft Word and/or other appropriate electronic format requested for the deliverable.

The WA COR is authorized to provide technical direction, in writing within five days (5), under this work assignment.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor

shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1 - Prepare Workplan

The Contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within _10_ calendar days of receipt of comments from the Contracting Officer, if required.

Task 2 - Lean and BPI Event Facilitation Support [Section/Element _2_, para(s) _1_, page(s) _9_]

The Contractor shall conduct Lean or other BPI facilitation events including preparation, facilitation and follow-up protocols to ensure implementation. This event will be a four (4) – five (5) day "Kaizen" event. The Contractor shall provide the following support, based on technical direction from the WA COR:

Pre-work and Scoping for Lean/BPI Event
This and subsequent pre-work meeting(s) will address: preliminary project scope, potential format of the Lean event and desired outcomes for the Lean event; potential participants in scoping meetings and Lean event; possible meetings with managers or other individuals in preparation for scoping or Lean event; and other actions that would contribute to the success of this Lean event and implementation effort.

The Contractor shall conduct a kick-off meeting and coordinate with the WA COR, identified Lean team leader of the process within five (5) calendar days of being informed of a potential Lean event topic for the purpose of beginning the planning and scoping meetings preparation, as well as, the subsequent Lean events and follow-through implementation schedule. The Contractor shall lead pre-work and scoping meetings as outlined in Technical Direction by the WA COR, with designated team leader, appropriate senior managers, and event participants in each identified area. These pre-work and scoping meetings will result in identification and/or refinement of project scope, objectives, and goals, as well as, aspirational efficiencies and waste reductions that can be achieved in the process. The Contractor shall assist the designated team leader in selecting or identifying team members and/or balancing teams to ensure the success of

those who participate in the event, as well as, ensuring the success of the actual event. The Contractor shall assist in planning, development of event documents (e.g., charter, agenda, handouts, and other EPA event and communication templates) for the event. The WA COR will secure a date and facility for all meetings.

Event Facilitation of Lean (Kaizen or other BPI approaches), and Event Follow-up

The Contractor shall facilitate the designated Lean Event, depending on results of scoping, a Kaizen, simple Value Stream Mapping event or other designated BPI approach or methodology. The Contractor shall assist in planning, developing, compiling and distributing agenda, handouts and other materials for the meeting; facilitating the meeting; guiding and/or providing a summary report and document development; and providing a template or schedule to assist with follow-up meeting(e.g., 30, 60, 90 day check-in meetings) deemed necessary for each event. This shall include, but is not limited to:

- Facilitating the Lean event, which shall take between four (4) and five (5) days;
- Providing just-in-time Lean training to help acculturate EPA staff and stakeholders to Lean philosophy, tools and techniques;
- Coaching and mentoring EPA Lean event Team Leader and facilitator trainees to include delivery of learning/skill building materials to support the Agency's objective of successfully implementing business process improvement methods;
- Identifying and managing change during the Lean event and sidebar meeting; and
- Working with EPA internal staff and management, as well as external stakeholders, to develop a visual representation of the specified process flow and resulting improvements.

Kaizen events shall also include, but not be limited to:

- Identifying sources of non-value added activities (waste) and prioritize future waste minimization, elimination, and improvement activities (e.g., current state showing "as is" process flow for the designated process);
- Establishing a vision for the future, including development of a plan to achieve the vision (e.g., future state map showing "to be" process flow for the designated process);
- An implementation plan to take advantage of proposed streamlining ideas and assure implementation;
- Developing a continuous improvement process for the Lean event team to use in periodic evaluation of improvement opportunities;
- Identifying, documenting and guide the development of event communication documents for the resulting "Leaned" process (e.g., PowerPoint event summary, revised charters, "participant satisfaction" charts, VSM, team photos, etc.)
- Participation by phone or in person in follow-up meetings to be held 30 calendar days, 60 calendar days and 90 calendar days after the Lean event;
- Assisting in planning, developing, compiling and distributing agenda, handouts, and other materials for meetings: facilitating the meetings; and
- Providing a summary debrief and/or report and the Lean event.

Deliverables and schedule under Task 2

Lean Pre-Work and Scoping

2a. Kick-off meeting held within five (5) calendar days of being formed of potential Lean event topic.

2b. Draft agenda and schedule for scoping meeting within 15 calendar business days of the scheduled scoping meeting.

2c. Hosting/leading scoping meetings which results in the identification and documentation of project scope, objectives, goals, and agreed upon metric shall be held within 45 calendar days of project kick-off meeting.

2d. The Contractor shall provide a final summary "report" (e.g., event charters and other key documents) on the scoping meeting within five (5) calendar days of receipt of comments.

Lean Event Facilitation and Follow-up

2e. Provide agenda for each event within 15 calendar days of the scheduled event.

2f. Conduct/facilitate the Lean or BPI event as identified/agreed upon in the scoping stage.

2g. Draft Summary "Report" of each Lean event is to be completed within 15 calendar days of completion of the Lean event.

2h. Final Summary "Report" of each Lean event five (5) calendar days after receipt of revisions from the WA COR, including presentations, current state and ideal state value stream maps and proposed action plan forward.

2i. Provide guidance and facilitate event's 30-60-90 follow-up/implementation meetings as scheduled.

Assumptions: For the purpose of estimating support for this task the Contractor shall assume facilitation needs of an OECA event that will last four (4) to five (5) days. This events may range from a value stream mapping exercise to a full five (5) day Kaizen event. The WAM will provide technical direction with specific process subject area, program office lead and other event information. The Contractor shall assume facilitated events are in Washington, DC at the Potomac Yards Facility. The Contractor should not assume room/facilities acquisition in assumptions.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-08

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016	Replication and Scale-up of Le
	Base X Option Period Number	

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Element 1 and 2, para 2.2 & 2.8, all paras pg 8-9

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 09/21/2015 To 07/16/2016

Comments:
The purpose of this action under IEc Contract EP-W-15-011 is to initiate Work Assignment No. 0-08. The Contractor shall submit a work plan and estimated budget in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee:	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: John Heffelfinger (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-2192 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name: (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

Work Assignment SOW

Work Assignment Title: Support for Replication and Scale-up of Lean Results at EPA

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: WA 0-08

Estimated Period of Performance: Date of Issuance to July 16, 2016

Estimated Level of Effort: 905 hours

Key EPA Personnel:

Work Assignment COR (WA COR):

John Heffelfinger
Office of Policy/OSEM/ESD (1807T)
202-566-2192
heffelfinger,john@epa.gov

Contract Level COR:

Cheryl R. Brown
Office of Policy, Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

The Government Performance and Results Act (GPRA) of 1993 and GPRA Modernization Act of 2010 hold all federal agencies accountable for how they use their resources to achieve results. The U.S. EPA created the Office of Strategic Environmental Management (OSEM) to bring creativity to bear on solving pressing environmental problems. The long term goals of the Office are to catalyze transformational change, promote environmental stewardship behavior, and foster a culture of continuous improvement to address pressing organizational and environmental issues.

Since 2005, OSEM has been providing support to state environmental agencies and EPA on the use of business process improvement (BPI) methods such as Lean and Six Sigma to improve administrative and programmatic processes in government. Typically, within a few months of implementation of BPI methods (e.g., Lean Kaizen events), States and EPA have reduced the complexity, backlogs, unnecessary steps, approval cycles and other wastes of government processes leading to signification efficiencies (e.g., 50% reduction in permit review time, reducing RCRA Corrective Action process time from 19 to just over five (5) years, etc.). These "Leaning" events, as well as other Lean and BPI methods, help eliminate waste and allow more staff time to be available for "mission

critical" work, without sacrificing environmental protection goals or reducing value-added processes.

Given the success EPA has experienced to date in Leaning its processes, more recently EPA has begun efforts to replicate, or scale-up, successful results from previously completed Lean projects to other EPA offices and states. Replication typically involves identifying process improvements (e.g., process changes and tools) from a Lean project and applying them to identical or similar processes elsewhere to achieve similar benefits and improve organizational performance, recognizing that some degree of modification may be needed to successfully adapt Lean process results from other organizations.

The purpose of this work assignment is to support OSEM, EPA headquarters and regional offices, and states in their pursuit of replication and scale-up of successful Lean results as a means to achieve greater standardization of more efficient and effective work processes across the Agency. Under the work assignment, the contractor shall assist EPA in: 1) identifying opportunities for replication/scale-up from EPA's universe of completed Lean projects; 2) assessing results achieved and identifying best practices from EPA's Lean replication efforts; and 3) pursuing replication and scale-up of specific processes identified from previous Lean events. The contractor shall provide general communications support for each of these Lean replication and scale-up program activities.

Expertise required for support of this work assignment include: analysis and assessment of EPA's Lean program experiences and results; application of Lean coaching, training and facilitation practices on a limited scale; and ability to provide communications in written and electronic mediums for as high impact reports, presentations, and graphic representation.

Quality Assurance (QA) Requirements:

Check [ ] Yes or [X] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverable shall be in Microsoft Word and/or other appropriate electronic format requested for the deliverable. Unless otherwise specified, all deliverables will be delivered in electronic form and as 508 compliant file.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1 - Prepare Workplan

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer (CO). The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, and a detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within _10_ calendar days of receipt of comments from the Contracting Officer, if required.

Task 2 - Identify opportunities for replication/scale-up by gathering and reviewing information on completed Lean projects. [Section IV, Element 1, para. 2.2 (pg. 5), para. 2.8 (pg. 7); Element 2, all paras. (pgs. 8-9)]

As directed by the WA COR, the contractor shall assist EPA in identifying Lean improvement ideas that could be replicated or scaled up to address similar problems in EPA headquarters, regional offices, and states. This work shall include, but is not limited to:

- Reviewing Lean project information on EPA headquarters, regional offices, and state web sites.
- Contacting representatives from past Lean projects to collect and review selected materials from the project (e.g., charters, process maps, presentations, implementation plans, follow-up products, results and metrics information).
- Evaluating whether completed Lean projects would make good candidates for replication, considering factors such as value, transferability, similarity and availability of points of contact/project team leaders.
- Populating EPA's Lean SharePoint site with materials collected from past Lean projects.
- Compiling relevant information and developing separate packages of materials to provide "how-to" guides containing tools and recommendations on how to replicate the results from specific Lean projects.

Deliverables and schedule under Task 2

All products are to be delivered according to the specifications and timeline as directed by the WA COR:
2a. Convene a kick-off meeting to discuss a strategy and approach for conducting this task, within 7 days after workplan approval.
2b. Develop a draft plan(s) for collection, review, evaluation, and populating/posting of Lean project information with 15 calendar days after issuing the technical directive.
2c. Revised draft(s) within 10 calendar days of receipt of comments from the COR on any draft materials.
2d. Final materials and files within 10 calendar days of receipt of comments from the WA COR.

Task 3 -- Assessing results achieved and identifying best practices from EPA's (and authorized states) Lean replication efforts. [Section IV, Element 1, para. 2.2 (pg. 5), para. 2.8 (pg. 7); Element 2, all paras. (pgs. 8-9)]

As directed by the WA COR, the contractor shall conduct a comprehensive assessment of EPA's Lean replication efforts, i.e., where EPA (or an EPA authorized state) has attempted to replicate results or improvements from previously completed Lean projects. The contractor shall identify the various replication approaches and techniques that were used, and capture results from these replication experiences. This work shall include but is not limited to:

- Gathering information to identify what activities occurred in support of individual replication efforts
- Assessing what worked well and what didn't work well
- Identifying lessons learned and best practices to help inform future Lean replication activities at the Agency

The contractor shall collect information primarily through interviews with EPA and state managers and staff involved in the replication efforts, as well as by obtaining and reviewing relevant documentation.

Deliverables and schedule under Task 3
As directed by the WA COR. The contractor shall:
3a. Prepare the following draft and final materials and conduct the individual replication assessments under this task:

- Framework for the assessments, identifying purpose, approach, and outcomes desired
- Information collection and analysis plans
- Interview guides
- Presentation of findings and conclusions

3b. Prepare separate reports for individual replication efforts, which may take the form of a case study and/or summary "story" of the experience.
3c. Prepare a draft and final comprehensive report on EPA's experiences with Lean replication, including an assessment of results, and identification of lessons learned and best practices.

Task 4 – Provide support to EPA headquarters and regional offices (and authorized states) in pursuing replication and scale-up of specific processes identified from previous Lean events. [Section IV, Element 1, para. 2.2 (pg. 5), para. 2.8 (pg. 7); Element 2, all paras. (pgs. 8-9)]

As directed by the WA COR, the contractor shall provide direct support to EPA in replicating/scaling up processes identified from previous Lean projects. Such support may include, but is not limited to coaching and consultation, Lean facilitation, staff training, and development of tailored materials/products to support the effort.

Examples of support under this task include providing advice and consultation to individual EPA offices interested in replicating specific Lean project results. The contractor shall also be prepared to provide direct facilitation support for up to two Lean replication events, which EPA anticipates will each consist of one (1) – two (2) day replication workshops. The workshops will be used to expose participants to Lean principles and tools, and to help build an understanding about what problems exist in their current process and how a Lean replication approach can be used to address those problems.

As directed by the WA COR, the contractor shall assist in planning and developing materials for each Lean replication workshop; facilitating the workshop; providing a summary report; and providing follow-up coaching and consultation as deemed necessary for each workshop.

For purposes of estimating support for this task, the contractor shall assume travel to two EPA regional offices, one in the eastern U.S. and one in the western U.S. Otherwise all activity will be in Washington, DC.

Deliverables and schedule under Task 4

As directed by the WA COR, the contractor shall:

4a. Prepare a draft agenda for Lean replication workshop within 30 calendar days of the workshop.

4b. Prepare draft handouts and other materials for each Lean replication workshop within 20 days of the workshop.

4c. Prepare a draft Summary Report of Lean Replication workshop within 15 calendar days after completion of the workshop. This may include presentations, value stream maps, and proposed action plan forward for replication by the program office.

4d. Prepare a final Summary Report of Lean Replication workshop 5 calendar days after receipt of revisions from the COR.

Summary of Deliverables and Dates:

1a. Workplan within 15 calendar days of receipt of work assignment.

1b. Revised workplan within _10_ calendar days of receipt of comments from the

Contracting Officer, if required.

All products are to be delivered according to the specifications and timeline as directed by the WA COR:

2a. Convene a kick-off meeting to discuss a strategy and approach for conducting this task, within 7 days after workplan approval.

2b. Develop a draft plan(s) for collection, review, evaluation, and populating/posting of Lean project information with 15 calendar days after issuing the technical directive.

2c. Revised draft(s) within 10 calendar days of receipt of comments from the COR on any draft materials.

2d. Final materials and files within 10 calendar days of receipt of comments from the WA COR.

As directed by the WA COR. The contractor shall:

3a. Prepare the following draft and final materials and conduct the individual replication assessments under this task:

- Framework for the assessments, identifying purpose, approach, and outcomes desired
- Information collection and analysis plans
- Interview guides
- Presentation of findings and conclusions

3b. Prepare separate reports for individual replication efforts, which may take the form of a case study and/or summary "story" of the experience.

3c. Prepare a draft and final comprehensive report on EPA's experiences with Lean replication, including an assessment of results, and identification of lessons learned and best practices.

As directed by the WA COR, the contractor shall:

4a. Prepare a draft agenda for Lean replication workshop within 30 calendar days of the workshop.

4b. Prepare draft handouts and other materials for each Lean replication workshop within 20 days of the workshop.

4c. Prepare a draft Summary Report of Lean Replication workshop within 15 calendar days after completion of the workshop. This may include presentations, value stream maps, and proposed action plan forward for replication by the program office.

4d. Prepare a final Summary Report of Lean Replication workshop 5 calendar days after receipt of revisions from the COR.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-09

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016	Support Design and Deve ArchEE
	Base X Option Period Number	

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Element 3 pages 9,10,11,12

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 10/06/2015 To 07/16/2016

Comments:
The purpose of this action under Contract EP-W-15-011 is to initiate Work Assignment 0-09. The Contractor shall submit a work plan and budget estimate in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee:	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Matt Keene (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-2240 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Jennifer Kuhn (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-0844 FAX Number:

Work Assignment SOW

Work Assignment Title: Supporting the Design and Development of the Architecture of Environmental Evaluation (ArchEE).

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: 0-09

Estimated Period of Performance: **Date of Issuance to** July 16, 2016

Estimated Level of Effort: 207 hours

Key EPA Personnel:

Work Assignment COR (WA COR):
Matt Keene
Office of Policy/OSEM
202-566-2240
Keene.matt@epa.gov

Contract Level COR:
Cheryl R. Brown
Office of Policy, Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:
The Government Performance and Results Act (GPRA) of 1993 and GPRA Modernization Act of 2010 hold all federal agencies accountable for how they use their resources to achieve results. The U.S. EPA created the Office of Strategic Environmental Management to bring creativity to bear on solving pressing environmental problems. The long term goals of the Office are to foster a performance-oriented regulatory system, promote environmental stewardship behavior and create a culture of creative problem solving.

The Office is collaborating with others to develop an Architecture for Environmental Evaluation (ArchEE). ArchEE is an open-access repository of evaluations and other evaluative knowledge that can be analyzed and synthesized to support evidence-based practice and improved transfer and use of evaluative knowledge for environmental management. The Office has been supporting the Environmental Evaluators Network (EEN) by bringing a group of stakeholders together in June 2015 to begin designing ArchEE. During that design workshop, a number of working groups (i.e. cluster groups) were created that are continuing the work to design and develop the ArchEE initiative.

As ArchEE is being developed, the Office proposes to pilot ArchEE and evaluation

synthesis to inform OP efforts in, for instance, advancing sustainable purchasing in the Federal government. Evaluation synthesis, made possible by the development of the ArchEE initiative, could help answer questions like:

- What is already known (e.g. about sustainable purchasing) that would help the Office improve our decision making, planning, implementation, effectiveness, etc. in this area?
- Has evaluation and similar endeavors generated evidence that could be useful in supporting EPA's efforts?
- How can EPA access and use this evidence?

The key steps in developing ArchEE and thus EPAs capacity for evaluation synthesis include:

- Continued development of the design and development of the ArchEE initiative through the work of the ArchEE working groups that were formed at the design workshop in June 2015;
- Testing the ArchEE concept on a real world example and sharing learning from that experience with the EEN community;
- In coordination with partners, continue convening and organizing meaningful communications and actions for ArchEE design and development; and
- Continued documentation and dissemination of ArchEE communications, progress, actions and responsibilities.

The purpose of this work assignment is to provide assistance in the continued design and development of ArchEE, particularly in coordinating and documenting progress of the ArchEE Working Groups (i.e. "cluster groups") in support of the larger ArchEE initiative. This support will include but not be limited to: 1) coordinating communications logistics including conference calls, webinars, etc; 2) participating in working group communications and documenting (e.g. notetaking, webinar recording, etc) working group communications, decisions and responsibilities; and 3) providing clear and comprehensive documentation of working group discussions, decisions, responsibilities, and next steps across all working groups and the Environmental Evaluators Network (EEN); 4) Assisting to disseminate and provide open access to documentation of ArchEE working group communications, decisions, actions, etc.

Quality Assurance (QA) Requirements

Check [ ] Yes or [x] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal.

Work Assignment CORs will provide additional information here, if **Yes** is checked above.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverable shall be in Microsoft Word and/or other appropriate electronic format requested for the deliverable.

The WA COR is authorized to provide technical direction, in writing, under this work assignment.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1 - Prepare Workplan

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

Deliverables and Schedule under Task 1

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within __ calendar days of receipt of comments from the Contracting Officer, if required.

Task 2 - Coordinate, Document and Disseminate Workgroup Communications Contract SOW Element 3 pages 9,10,11,12

The contractor shall provide assistance in the continued design and development of ArchEE by assisting in coordinating and documenting communications, progress, decisions, responsibilities and next actions of the ArchEE Working Groups (i.e. "cluster groups") as they support the larger ArchEE initiative. The Contractor shall provide the following support, based on technical direction from the WA COR:

Coordinating and Documenting ArchEE Workgroup Communications

The Contractor shall coordinate communications logistics (e.g. meeting times) for ArchEE cluster groups and other communications involving small groups working furthering the design and development of ArchEE. This shall include, but is not limited to:

- Coordinating with workgroup and meeting leaders to identify participants, schedule times, distribute connection information (e.g. call in #'s) and agendas.
- Ensuring high quality agendas including, for instance, meeting title, goal(s), process, participants, identified meeting leader/facilitator, etc.
- Drafting and extending invitations to meeting participants and coordinating across schedules to acheive maximum participation
- Participating in working group communications (e.g. meetings) and documenting (e.g. notetaking, webinar recording, etc) meetings, other communications and resulting decisions, responsibilities and next steps.
- Ensuring, as much as possible, a consistent format/look to communications (e.g. agendas, meeting invitations, etc) about ArchEE meetings.

Organizing, Cleaning, Revising and Disseminating Documentation of Workgroup Communications

The Contractor shall organize and share information gathered and documented during ArchEE work group discussions. This shall include, but is not limited to:

- Organizing notes and other documentation such that it is cohesive, comprehensive, straightforward and accurate.
- Maintaining a consistent format to documentation (e.g. document headers, spacing fonts, etc) throughout that includes the meeting agenda, participants, timing/dates, overall general discussion notes and highlights decisions, next steps/actions and responsibilities.
- Distributing organized notes to meeting participants for review and comment prior to sharing more widely.
- Revising notes based on participant feedback.
- Posting revised notes to the EPA ArchEE SharePoint site and notifying meeting participants of the post.

Deliverables and schedule under Task 2

Coordinating and Documenting ArchEE Workgroup Communications

2a. Coordinate and schedule ArchEE workgroup meetings within 3 days of being notified of the need for a meeting

2b. Provide complete meeting information to participants, at a minimum, 1 day in advance of the meeting

2c. Document all aspects of workgroup communications during the meeting, notifying participants when a draft will be ready for their review.

Organizing, Cleaning, Revising and Disseminating Documentation of Workgroup Communications

2d. Draft a well organized, clean version of meeting notes that includes general discussion notes, decisions made, next steps and responsibilities.
2e. Distribute meeting notes to meeting participants for review and revise notes within 2 days of receiving revisions.
2f. Post revised notes to ArchEE EPA SharePoint site and notify meeting participants of the posting within 2 days of completing revisions.

Assumptions: For the purpose of estimating support for this task the Contractor shall assume the need for meeting support of fifteen (15) to twenty-five (25) conference calls and other meeting formats (e.g. webinar) of 1-2 hours each. The Contractor should assume no travel and assume that EPA conference call lines will be available for communications.

Summary of Deliverables and Dates:
1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within 5 calendar days of receipt of comments from the, if required.

Deliverables and schedule under Task 2
Coordinating and Documenting ArchEE Workgroup Communications
2a. Coordinate and schedule ArchEE workgroup meetings within 3 days of being notified of the need for a meeting
2b. Provide complete meeting information to participants, at a minimum, 1 day in advance of the meeting
2c. Document all aspects of workgroup communications during the meeting, notifying participants when a draft will be ready for their review.

Organizing, Cleaning, Revising and Disseminating Documentation of Workgroup Communications
2d. Draft a well organized, clean version of meeting notes that includes general discussion notes, decisions made, next steps and responsibilities.
2e. Distribute meeting notes to meeting participants for review and revise notes within 2 days of receiving revisions.
2f. Post revised notes to ArchEE EPA SharePoint site and notify meeting participants of the posting within 2 days of completing revisions.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-10

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016 Base X Option Period Number	Lean Training

Contractor: INDUSTRIAL ECONOMICS, INCORPORATED

Specify Section and paragraph of Contract SOW: Element 2, para 1-3 page 8 and 9

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 10/22/2015 To 07/16/2016

Comments:
The purpose of this action is to initiate Work Assignment #0-10. The Contractor shall submit a work plan and estimated budget in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee:	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Yvonne Watson (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-2239 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name: (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Jennifer Kuhn (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-0844 FAX Number:

Work Assignment SOW Amendment

Work Assignment Title: Lean Training

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: 0-10

Estimated Period of Performance: **Date of Issuance to** July 15, 2016

Estimated Level of Effort: 140 hours

Key EPA Personnel:

Work Assignment COR (WA COR):
Yvonne M. Watson
Office of Strategic Environmental Management (1807T)
(202) 566-2239
watson.yvonne@epa.gov

Contract Level COR:
Cheryl R. Brown
Office of Policy, Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

The United States Environmental Protection Agency (EPA), Office of Strategic Environmental Management (OSEM) helps EPA and others make the strategic policy and governance changes necessary to meet the Agency's goals now and in the future through analysis of emerging issues and strategic management practices, including program analysis and program evaluation. Since 2005, OSEM has been providing support to, and has been working with, State environmental agencies on the use of business process improvement methods such as Lean and Six Sigma in a new and innovative way to drastically improve permitting and administrative processes.

In 2013, EPA adopted an introspective approach, choosing to apply Lean thinking to many of our internal processes. Supporting these efforts requires capacity building to promote Lean thinking across multiple audiences. A well-rounded Training and Capacity Building framework that emphasizes a combination of education, experiential and mentoring opportunities that support: 1) EPA's long-term culture change goal; and 2) the unique Continuous Process Improvement (CPI) Lean capacity building needs within the Agency (National Program Managers (NPMs) and Regions) is essential.

The purpose of this work assignment is to design and deliver training materials that support broader scale understanding and application of Administrative Lean and Continuous Process Improvement (CPI) principles, tools and techniques, also known as "Lean Government", within EPA, State environmental agencies, Federal Agencies and local governments. The training will enable EPA and its partners to more effectively integrate Lean thinking and a CPI culture throughout the agency.

The work performed in support of this work assignment will aid the deployment of a National Lean Program at EPA. Specific activities under this work assignment will include: 1) delivering a CPI training/workshop to EPA staff and designing an outline for a new EPA-specific CPI training course.

Quality Assurance (QA) Requirements

Check [ ] Yes or [**X**] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal.

Work Assignment CORs will provide additional information here, if **Yes** is checked above.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverables shall be in 508-compliant.pdf, Microsoft Word and Microsoft Power Point formats.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

The (COR) is authorized to provide written technical direction to the Contractor (with a courtesy copy to the Contracting Officer and Project Officer) to clarify requirements already specified in this Statement of Work.

Task 1 - Prepare Workplan

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

1a. Workplan within 15 calendar days of receipt of work assignment.

1b. Revised workplan within 5 calendar days of receipt of comments from the Contracting Officer, if required.

Task 2 - Encouraging Broad Scale Application of Business Process Improvement Tools and Organizational Excellence Section _Element 2_, para(s) __1-3___, page(s) _8-9_____]

TASK 2: DESIGN LEAN TRAINING MATERIALS

The current emphasis for EPA's Lean training efforts is to offer training and support (mentoring, coaching, & technical assistance) to promote implementation of existing and future projects and foster Lean thinking and culture at EPA to advance the agency further along its Lean maturity model. To support these efforts, EPA requires contractor assistance in assembling and designing content to better equip EPA staff to achieve this goal. Specifically, EPA's initial interest is in developing project management, Lean and relevant continuous process improvement (CPI) training materials and tools to support EPA staff with efforts following up Lean exercises and Kaizen events.

~~MODIFY/DEVELOP LEAN TRAINING MATERIALS. OSEM's initial thinking regarding the "EPA Way" approach to Lean Training involves an emphasis on the Plan Do Check Act (PDCA) methodology popularized by Edward Deming and the A3 and 8 Step problem solving methods. Our vision is for EPA audiences (Lean team leaders, practitioners and others) to: 1) understand and appropriately apply the PDCA and problem solving methods, 2) understand the importance of Lean principles, philosophy and culture of continuous improvement; and 3) understand, when to apply the appropriate Lean and continuous process improvement (CPI) tools to address each stage of the PDCA process. EPA has developed a PDCA and problem solving framework that will guide these efforts.~~

~~The contractor shall work with the EPA COR and Lean Team staff to develop content for the training modules consistent with the EPA framework referenced earlier specifically those phases associated with post event implementation and follow up. The EPA COR will provide the contractor with some content and examples of existing materials that cover the specific topics. The contractor shall~~

~~modify the materials for an EPA audience as directed by the EPA COR and will assemble the various components into a coherent presentation. In the absence of existing materials, the contractor shall draw content from existing materials including EPA guides (e.g., Lean Starter Kit, Metrics Guide, Scoping Guide, Follow-Up Guide etc.,) and publicly available, guides and training materials.~~

~~The contractor shall design "stand alone" modules that address the phase of the PDCA framework along with the key problem solving steps/questions and the appropriate tools.~~

~~For example, the Do phase of the PDCA cycle involves developing countermeasures and seeing them through while the Check phase involves confirming results and process. Both phases include important steps associated with implementation. The associated lean tools may involve implementing 5S, Visual Management, Error Proofing FMEA or developing a data collection plan and implementing standard work. The contractor shall design a 1- 4 hour module covering the specific topic as well as the use of relevant Lean and CPI tools. The contractor shall develop an outline describing the content of each module for review by the EPA COR. Once the outline is approved by the EPA COR, the contractor shall develop PowerPoint slides covering key points along with talking points. Case studies and exercises shall be developed as needed. The contractor shall deliver draft and final materials in accordance with the dates specified in the TD.~~

ADD

DEVELOP ON-LINE TRAINING COURSE. The EPA requires contractor assistance in developing on-line training materials for EPA audiences. The EPA will provide the contractor with course content in a Microsoft Power Point format. The contractor shall provide staff knowledgeable of software authoring tools used to design on-line courses, experience implementing EPA Web standards and compliance with the Agency's 508 accessibility requirements to design an interactive, self-paced on-line course that provides users with practical instruction and the basic steps needed to develop and complete the course objectives.

The contractor shall develop a web-based, online training course by using content from EPA provided training materials. The contractor shall design the course template to accommodate the various interactions and visual elements to be incorporated into the online course. In addition, the contractor shall build the online training as a sequence of modules and incorporate various graphical and multimedia elements.

Technical Requirements for On-line Training. The contractor shall collect and document essential information to address technical requirements for Web development of EPA products. The contractor shall develop a Technical Requirements and Implementation Memo that considers and documents the following elements: the specific on-line authoring tool that will be used; technical platform requirements; anticipated

deployment requirement and specifications for the online course; key functionalities and system requirements; course template; overview of concept/approach to design the Power Point course content for the Web; and identification/ confirmation of multimedia and other technologies to be used.

Prepare Graphics, Multimedia and Interactive Content. As necessary, the contractor shall convert and otherwise prepare graphic, multimedia and interactive elements for use in the on-line training. For example, the contractor may need to reformat, convert, or modify content for inclusion in the online course. Additionally, the contractor shall use the transcripts/notes provided and develop audio components to be used in the online training. Moreover, the contractor shall ensure the online training course complies with Section 508 accessibility requirements.

Outline for On-Line Training Course. The contractor shall develop an outline describing the approach to design/redesign the Power Point course for on-line delivery, specifically emphasizing interactive features. The contractor shall deliver the outline in accordance with the dates specified in the Technical Directive (TD) issued by the EPA COR.

Draft and Final Course. After approval of the course outline, the contractor shall develop a draft of the course in accordance with the deliverable dates specified in a TD issued by the EPA COR. After EPA approval of the draft course, the contractor shall finalize and deliver the completed course to EPA. The contractor shall coordinate with the EPA COR and EPA Webmaster to ensure the platform and web related requirements identified in the Technical Requirements memo have been met and if needed, obtain approval and clearance for posting the online training course to the web page and Web server.

For the purposes of costing, the contractor shall consider the following assumptions:

Assumptions:

- EPA will provide the contractor with course content and speaker notes.
- To the extent possible, the contractor shall use an on-line authoring tool that will enable EPA to edit content as needed.

~~**Deliverables and Schedule Under Task 2**~~

~~2 1a Module Outline 7 calendar days after receipt of TD from COR~~

~~2 1b New/Revised Training Materials 14 calendar days after receipt of TD from COR~~

ADD

Deliverables and Schedule Under Task 2

2a	Technical Requirements Memo	7 calendar days after receipt of TD from COR
2b	On-Line Training Course Outline	As specified in the TD from the COR
2c	Draft On-Line Course	As specified in the TD from the COR
2d	Deliver Final On-Line Course	As specified in the TD from the COR

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-10

☐ Other ☒ Amendment Number: 000001

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016 Base X Option Period Number	Lean Training

Contractor: INDUSTRIAL ECONOMICS, INCORPORATED

Specify Section and paragraph of Contract SOW: Element 2, para 1-3 page 8 and 9

Purpose:
- ☐ Work Assignment
- ☒ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 12/07/2015 To 07/16/2016

Comments:
The purpose of this action under Work Assignment 0-10 is to issue a revised Statement of Work (SOW). The Contractor shall submit a work plan and budget estimate in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period: 07/17/2015 To 07/16/2016 — Cost/Fee: — LOE:

This Action:

Total:

Work Plan / Cost Estimate Approvals

Contractor WP Dated: — Cost/Fee: — LOE:

Cumulative Approved: — Cost/Fee: — LOE:

Work Assignment Manager Name: Yvonne Watson (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-2239 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name: (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-11

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016 Base X Option Period Number	Supp for West Africa Drinking

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Section IV. Element 3. Pages 9-13

Purpose:
- ☒ Work Assignment
- ☐ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 12/04/2015 To 07/16/2016

Comments:
The purpose of this action under Contract EP-W-15-011 is to issue Work Assignment 0-11. The Contractor shall submit a work plan and estimated budget in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee:	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Teresa Kuklinski (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-0246 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name: (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

Work Assignment SOW

Work Assignment Title: Support for West Africa Drinking Water Quality Program

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: 0-11

Estimated Period of Performance: **Date of Issuance to** July 16, 2016

Estimated Level of Effort: 350 hours

Key EPA Personnel:

Work Assignment COR (WA COR):
Teresa Kuklinski
OITA ORBA (2650R)
202-564-0246
202-565-2427

Contract Level COR: Cheryl R. Brown
Office of Policy, Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

Africa is urbanizing at the highest rate of any region of the world. With increasing rates of population growth and urbanization, infrastructure in African cities such as water delivery systems can be overwhelmed. Poor governance, chronic under-investment and a lack of skilled staff make it difficult for urban water utilities to provide safe drinking water to the consumers it serves. However, experience suggests that strong leadership, preventative risk-based management approaches, and sustained capacity-building efforts can contribute to an incremental improvement to the quality of drinking water in African cities. An improved legal and institutional context with enhanced transparency and accountability in the water sector could contribute to more effective resource management, and at the same time maximize available opportunities and ensure the fair and equitable distribution of benefits.

In partnership with USAID West Africa, USEPA and its West Africa Water Quality Program, is supporting the development of an enabling environment in the water sector through capacity-building on water quality monitoring in Ghana and Burkina Faso by building drinking water laboratory, governance and public participation capacity. Access to clean water and sanitation is critical to improving health and, in turn, increasing human productivity and economic growth.

The purpose of this work assignment is to provide monitoring and evaluation support for EPA's West Africa Drinking Water Quality Program, which has the three components of laboratory capacity, governance and public participation. This assistance shall include the development of a logic model as a means of conducting a formative evaluation of the West Africa Water Quality Program. The development of a logic model is an essential tool in developing a common understanding of a program's inputs, outputs, activities and outcomes. It also provides a framework to communicate results and directions of the program. The development of the logic model shall include a face-face meeting in Washington, DC with the West Africa Drinking Water Quality team. Assistance developing Indicators/Performance Measures to help communicate results of the program shall be provided for the logic model's outputs and outcomes. A Monitoring and Evaluation Plan shall also be developed for the duration of the 4 year project.

Quality Assurance (QA) Requirements

Check [ ] Yes or [x] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal.

Work Assignment CORs will provide additional information here, if **Yes** is checked above.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverable shall be in Microsoft Word and/or other appropriate electronic format requested for the deliverable.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1 - Prepare Workplan

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the

workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within 5 calendar days of receipt of comments from the Contracting Officer, if required.

Task 2 - Develop Logic Model and Indicators/Performance Measures
[Contract SOW Section IV. Element 3. Pages 9-13]

Based on technical direction of the COR, the contractor shall develop a logic model as a means of conducting a formative evaluation of the West Africa Drinking Water Quality Program. The development of a logic model is an essential tool in developing a common understanding of a program's inputs, outputs, activities and outcomes. It also provides a framework to communicate results and directions of the program.

The contractor shall discuss the West Africa Drinking Water Quality program with the COR and develop a draft logic model to use in a face-face meeting in Washington, DC with EPA's West Africa Water Quality Team. In the face-face meeting with the team, the contractor shall go over the purpose of a logic model and discuss and further develop components of the logic model for the program, including resources, activities, outputs, audiences, and planned short-term, intermediate and longer-term outcomes. The EPA team will provide input into the logic model during the face-face meeting. The contractor shall also note assumptions, external factors that could influence outcomes and key decisions that must be made as the project moves forward.

The contractor shall develop Indictors/Performance Measures for each output and outcome.

As a follow up to the face-face meeting, the contractor shall send versions of the logic model and indicators via email to the COR. The EPA project team plans to provide comments for the COR to consolidate for each version of the logic model. The COR will then send these consolidated comments to the contractor to incorporate as appropriate.

Deliverables and schedule under Task 2
2a. In-person meeting within two months of receipt of the final workplan.
2b. Logic Model within 4 months of receipt of final workplan.
2c. Indicators/Performance Measures within 4 months of receipt of final workplan.

Task 3 - Develop Monitoring and Evaluation Plan
[Contract SOW Section IV. Element 3. Pages 9-13]

A Monitoring and Evaluation plan shall be developed for EPA's West Africa Drinking Water Program. A Monitoring and Evaluation plan is an essential tool to help gauge progress towards program outputs and outcomes. The contractor shall identify tasks that might occur under a monitoring and evaluation plan for the 4 year West Africa Drinking

Water Quality program, using the logic model as a base. Tasks might include identifying the monitoring and evaluation audience, questions, indicators and data collection needs and timelines.

Deliverables and schedule under Task 3
3a. Develop a potential Monitoring and Evaluation Plan for the 4 years of the West Africa Drinking Water Program in a report format within 1 month of completion of Logic Model.

Summary of Deliverables and Dates:
1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within 5 calendar days of receipt of comments from the COR, if required.

2a. In-person meeting within two months of receipt of the final workplan.
2b. Logic Model within 4 months of receipt of final workplan.
2c. Indicators/Performance Measures within 4 months of receipt of final workplan.

3a. Develop a potential Monitoring and Evaluation Plan for the 4 years of the West Africa Drinking Water Program in a report format within 1 month of completion of Logic Model

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-12

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016	Tech Assist and Tech Editing
	Base X Option Period Number	

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Element 2, pp. 8-10, Element 3 pp. 9-11

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 07/17/2015 To 07/16/2016

Comments:
The purpose of this action under Contract EP-W-15-011 is to initiate Work Assignment 0-12. The Contractor shall submit a work plan and estimated budget in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee:	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Terell Lasane	Branch/Mail Code:
(Signature) (Date)	Phone Number: 202-566-0705
	FAX Number:
Project Officer Name: Cheryl R. Brown	Branch/Mail Code:
(Signature) (Date)	Phone Number: 202-566-0940
	FAX Number:
Other Agency Official Name	Branch/Mail Code:
(Signature) (Date)	Phone Number:
	FAX Number:
Contracting Official Name: Stefan Martiyan	Branch/Mail Code:
(Signature) (Date)	Phone Number: 202-564-1987
	FAX Number:

Work Assignment SOW

Work Assignment Title: Technical Assistance and Technical Editing For Lean and Evaluation

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: 0-12

Estimated Period of Performance: **Date of Issuance to** July 16, 2016

Estimated Level of Effort: 363 hours

Key EPA Personnel:

Work Assignment COR (WA COR):
Terell P. Lasane
Office of Strategic Environmental Management (1807T)
202-566-0705
202-566-2300

Contract Level COR: Cheryl R. Brown
Office of Policy, Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

The Government Performance and Results Act (GPRA) of 1993 and GPRA Modernization Act of 2010 holds all federal agencies accountable for how they use their resources to achieve results. It requires: (1) strategic planning, (2) the development of measures to assess program performance and progress, (3) that information is reported to the public, and (4) that agencies develop a schedule of planned and completed program evaluations.

The Evaluation Support Division (ESD) is located within the Office of Policy (OP)'s Office of Strategic Environmental Management (OSEM). ESD's mission is to leverage the tools of performance management (logic modeling development, performance measurement and metrics, and program evaluation) for staff and managers throughout the Agency to contribute to the Office's goal of facilitating development of high performing organizations.

OSEM has strategic priorities which include Sustainability and Lean in Government. Both of these areas of focus can benefit from the tools advanced in the ESD, and practiced in the other division of the OSEM, Integrated Environmental Strategies

Division (IESD) find utility in leveraging these tools (to include but not limited to Logic Modeling Development, Performance Measurement, and Metric Development, and Program Evaluation and Program Review).

The purpose of this work assignment is to provide support to ESD to achieve its mission by providing the training, technical assistance, and analytical support needed to enable its partners and clients to more effectively conduct program evaluations, develop performance measures and logic models. In addition, the work assignment supports efforts to build capacity for evaluation frameworks that support the evidence-based management strategies that leads to high performing organizations. The activities under this work assignment will include: the development of logic models, the development of tools to support High Performing Organizations (HPO), the delivery of technical assistance, the review of performance management tools and documents, and conducting specialized analysis to support performance management.

The Work Assignment Contracting Officer Representative (WA COR) is authorized to provide written technical direction (TD) to the Contractor (with a courtesy copy to the Contracting Officer and Contract Level COR) to clarify requirements already specified in this Statement of Work.

Quality Assurance (QA) Requirements

The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal. A quality assurance project plan will be required for task 3 of this work assignment.

Tasks and Deliverables:

The WA COR will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverable shall be in Microsoft Word and/or other appropriate electronic format requested for the deliverable.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1: - PREPARE WORKPLAN

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and

include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WA COR, CL COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within 10 calendar days of receipt of comments from the Contracting Officer, if required.
1c. Quality Assurance Plan for Quality Metrics task within 15 days of receipt of work assignment.

TASK 2: PROVIDE TECHNICAL ASSISTANCE ON THE REFINEMENT OF A HIGH PERFORMING ORGANIZATION CHECKLIST

(Task 2 - **Element** 2, pp. 8-10)

EPA will require technical assistance to refine the HPO Checklist. The contractor shall pilot test the utility of a tool that could be used by various levels of management to evaluate whether resources are being optimally deployed to produce a high performing organization. Examination of the viability of this tool will be two (2) phased, however, the current work assignment will only cover phase one (1). The first phase will require soliciting feedback on the draft of the instrument produced last year and making any necessary changes. The second phase will include: 1) pilot-testing the tool with a convenience sample of managers who volunteer to pilot the tool; 2) preparing a summary memo that outlines the findings of that pilot-testing exercise; 3) convene a call with OSEM Office Director and Division Director to discuss the deployment of the tool; and 4) launching an interactive version of the tool that can be completed online and that will enable data collection to track and monitor HPO practices over time.

Memoranda that summarize proposed changes to the HPO will be requested via TD on an as-needed basis. There may be additional information required as a result of the technical assistance offered to include, but not limited to: an organizational consultant's reports and recommendations about how a particular issue could be most effectively addressed or how resources can best be leveraged to receive desired organizational goals. The submission of these follow-on reports shall be created on an as-needed basis in response to a TD..

Deliverables and Schedule Under Task 2

2a	Review Feedback on the HPO Checklist	15 days after kickoff call takes place
2b	Edit the HPO Checklist	15 days after HPO checklist

has been reviewed and TD has been issued by WA COR to make edits to the HPO Checklist

Assumptions:

- For purposes of costing, the contractor shall assume that up to 75 hours will be available for phase 1 of this task.

TASK 3: PROVIDE TECHNICAL ASSISTANCE ON METRIC DEVELOPMENTS FOR THE QUALITY SYSTEM
(Task 3 Element 3 pp. 9-11)

The analysis of performance information to determine the impact of programs and practices on outcomes is an essential component that supports strategic environmental management. EPA requires contractor assistance to harness findings from evaluations and other evidence-based practices to inform key management decisions that fall in line with Agency's strategic priorities. For this task, contractors shall review all available data informing a particular policy or environmental strategy. Several lines of evidence shall be reviewed and analyzed. The primary source will be an evaluation conducted on the Quality Program that made the call for improved metrics to monitor system performance. The contractor shall utilize this collection of data to draw summative conclusions about how these results can best be leveraged for Agency initiatives.
The Office of Environmental Information (OEI) is requesting specific assistance on developing metrics that will enable monitoring of the success of the Quality Program. This third-party, objective, external analysis is critical to a legitimate evidence based management culture. The contractor shall deliver a report which summarizes the recommendations for Quality Program metrics that may be deployed after collecting data from key stakeholders involved in the process. Prior to creating the report, the contractor shall meet with the WA COR, OEI Management, and other key stakeholders in the Quality system to discuss the measurement needs of the office that can be used in management. Following the discussion, the contractor shall draft a memo for WA COR consideration, describing the purpose of the analysis, key questions or issues the analysis will answer and a brief summary describing the method or approach that will be used to address the key questions or issues. The draft memo shall also include an annotated outline which identifies the key elements that will be included in the metric development. The contractor shall deliver the draft memo and outline in accordance with the dates specified in a TD. The WA COR will review and provide feedback to the contractor in order to finalize the report documenting suggested and developed metrics. After review and approval of the draft report by the EPA WA COR, the contractor shall provide the final draft memorandum to the WA COR in accordance with the dates specified in the TD.

Assumptions:

- For purposes of costing, the contractor shall assume that up to 280 hours will be available for this task.

Deliverables and Schedule Under Task 3

3a Memoranda summarizing Review of Quality System's Needs	15 days after kickoff call with OEI
3b Teleconference Meetings with Stakeholders	15 days after memoranda is issued
3c Preparation of a Methodology to Gain Information about Metric Needs	15 days after last teleconference has occurred
3d Draft Report of Metric Recommendations	30 days after methodology has been approved by WA COR through TD
3e Final Report of Metric Recommendations	30 days after draft report has been approved by WA COR via TD

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-12

☐ Other ☒ Amendment Number: 000001

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016 Base X Option Period Number	Tech Assist and Tech Editing

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Element 2, pp. 8-10, Element 3 pp. 9-11

Purpose:
- ☐ Work Assignment
- ☒ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 07/17/2015 To 07/16/2016

Comments:
The purpose of this action under work assignment 0-12, is to amend the SOW to include travel. The Contractor shall submit a work plan and estimated budget in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

	Contract Period:	Cost/Fee:	LOE:
	07/17/2015 To 07/16/2016		
This Action:			
Total:			

Work Plan / Cost Estimate Approvals

Contractor WP Dated:		Cost/Fee	LOE:
Cumulative Approved:		Cost/Fee	LOE:

Work Assignment Manager Name: Terell Lasane (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	202-566-0705
	FAX Number:	
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	202-566-0940
	FAX Number:	
Other Agency Official Name (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	
	FAX Number:	
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	202-564-1987
	FAX Number:	

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-13

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016 Base X Option Period Number	Program Evaluation Technical A

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Element 1: Section 1, 2.4 & 2.6

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 01/21/2016 To 07/16/2016

Comments:
The purpose of this action is to initiate WA 0-13 under Contract EP-W-15-011. The Contractor shall submit a work plan and estimated budget in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

	Contract Period:	Cost/Fee:	LOE:
	07/17/2015 To 07/16/2016		
This Action:			
Total:			

Work Plan / Cost Estimate Approvals

Contractor WP Dated:		Cost/Fee	LOE:
Cumulative Approved:		Cost/Fee	LOE:

Work Assignment Manager Name: Francine St-Denis (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	202-564-3829
	FAX Number:	
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	202-566-0940
	FAX Number:	
Other Agency Official Name (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	
	FAX Number:	
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	202-564-1987
	FAX Number:	

Work Assignment SOW

Work Assignment Title: Program Evaluation Technical Assistance for AIEO

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number:

Estimated Period of Performance: **Date of Issuance to** July 16, 2016

Estimated Level of Effort: 394 hours

Key EPA Personnel:

Work Assignment COR (WA COR):

Francine St. Denis
US EPA AIEO (2690R)
(202) 564-3829
(202) 565-2427

Contract Level COR:

Cheryl R. Brown
Office of Policy, Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

The purpose of this work assignment is the development of a report outlining the scope and breadth of EPA's work in Indian Country by summarizing information collected via EPA regional interviews, a literature review of publicly available and accessible information on State environmental programs and implementation practices, and documents provided by EPA. This Program Assessment is focused on the first component of the Strategic Objective 3.4, Strengthen Human Health and Environmental Protection in Indian Country, that is, EPA direct implementation of federal programs in Indian country. EPA is responsible for implementing its statutes in Indian country in the absence of a federally approved tribal program, and very few tribes currently have federally approved programs.

A critically important aspect of our work is to support federal delegation to tribes and provide direct support (technical assistance and funding) to tribes as they develop environmental protection programs. An assessment of the tribal environmental protection programs and their respective resource needs is beyond the scope of this Program Assessment. However, the results of this Program Assessment may provide important information to support a future assessment of tribal environmental protection program needs.

There are two tasks under this work assignment.

Specifics regarding the program(s) to be evaluated shall be provided via technical direction (TD). The COR is authorized to provide written TD to the Contractor (with a courtesy copy to the Contracting Officer and Project COR) to clarify requirements already specified in this Statement of Work.

Quality Assurance (QA) Requirements

Check [ ] Yes or [X] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal.

Work Assignment CORs shall provide additional information here, if **Yes** is checked above.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) shall review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverable shall be in Microsoft Word and/or other appropriate electronic format requested for the deliverable.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1 - Prepare Work Plan

The contractor shall prepare a work plan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO shall review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

Task 1: Work Plan and Budget Development	
The contractor shall provide a work plan and budget to EPA	Within 15 calendar days of contractor's receipt of work assignment.
The contractor shall provide a revised work plan and budget to EPA	Within 5 business days of contractor's receipt of comments from the Contracting Officer, if required.

Task 2 – Develop a Report Outlining the Scope and Breadth of EPA's Work in Indian Country by Summarizing EPA's Direct Implementation Requirements and Implementation Activities (Element 1: Section 1, 2.4 and 2.6.)

This task will complement efforts under contract EP-W-15-011 to support an ongoing dialogue among Agency senior management to identify emerging and priority issues; building collaboration across the Agency to address sustainability, programmatic and cross-media issues; and, supporting evaluation of promising practices for better results Under this task the contractor shall develop a report outlining the scope and breadth of EPA's work in Indian Country by summarizing information collected via EPA regional interviews, a literature review of publicly available and accessible information on State environmental programs and implementation practices and documents provided by EPA. This report shall include any EPA procedures, policies and/or implementation activities EPA undertakes to perform its responsibilities in the instances where a tribe does not have regulatory TAS. In addition, the report shall include EPA's oversight activities where a tribe does have regulatory TAS across the various program offices including but not limited to EPA's Office of Water (i.e., Clean Water Act, Safe Drinking Water Act), Office of Air and Radiation (e.g. Clean Air Act), Office of Chemical Safety and Pollution Prevention (e.g., Toxic Substances Control Act, Federal Insecticide, Fungicide, and Rodenticide Act, etc.), Office of Solid Water and Emergency Response (Comprehensive Environmental Response, Compensation, and Liability Act and Resource Conservation and Recovery Act , etc.) and Office and Enforcement and Compliance Assurance. The report should also highlight any differences between the States and EPA's implementation activities across the various program offices especially any implementation activities that a State can perform but there is no mechanism for EPA to perform. For example, the Reduction in Lead in Drinking Water Act (Act) prohibits the use or introduction into commerce any plumbing material used for potable use that does not meet the new definition of lead free. States can revise state plumbing codes to implement the Act; however, EPA can't establish or revise plumbing codes on tribal lands.

The report shall be approximately 15-25 pages and the contractor shall provide EPA a 508 compliant print package and 508 compliant web version of the document. There shall be no propriety fonts used in the development of the report. The contractor shall provide two 508 compliant drafts and one final 508 compliant document. In regards to Task 2, the

contractor shall have at least 5 years of experience in program evaluation of EPA's program.

In order to accomplish this task it is expected that the contractor shall interview EPA regional staff that work on tribal issues in the aforementioned offices particularly the Regions with the largest number of tribes (i.e., Regions 5, 6, 8, 9 and 10). The contractor shall develop interview questions for the regional interviews with guidance from EPA. In the development of this report the contractor shall also summarize information collected from EPA regional interviews, a literature review of publicly available and accessible information on State environmental programs and implementation practices and documents provided by EPA, EPA's direct implementation requirements under the law. This report shall include any EPA procedures, policies and/or implementation activities EPA undertakes to perform its responsibilities across the aforementioned various program offices. EPA shall provide the contractor a list of federal requirements by statute as a starting point for their interviews with the Regions and States. **The Contractor shall be in compliance with OMB guidelines for Information Collection Request (ICR).**

In the report the contractor shall identify the universe of regulated entities and media in Indian Country based on the methodology and documentation provided by EPA. This report shall include a list of the regulated facilities (e.g., drinking water and wastewater systems, landfills, underground storage tanks, underground injection wells, facilities producing air emissions, etc.) typically found in Indian Country based on documentation provided by EPA and the information collected through the regional interviews. The report shall also identify the corresponding governmental authority (e.g. tribal government, federal government, state/local government or a combination) that regulate those facilities. EPA shall provide a list of the tribes that regulate facilities and the type of facilities those tribes regulate under delegated programs.

Task 2: Develop a Report Outlining the Scope and Breadth of EPA's Work in Indian Country and Alaska Native Villages by Assessing and Identifying EPA's Direct Implementation Requirements

2.1	The contractor shall provide EPA with a draft of EPA regional interview questions	Within 15 business days of receiving technical direction from EPA COR.
2.2	The EPA shall return comments on the interview questions to the contractor	Within 10 business days of receipt of the contractor's first draft.
2.3	The contractor shall provide EPA with the final regional interview questions	Within 5 business days of EPA providing comments on the interview questions
2.4	The contractor shall conduct interviews of the Regions for the various program offices	Within 40 business days of work plan approval.
2.5	The contractor shall provide EPA with a first draft of the report	Within 50 business days of work plan approval.

2.6	The EPA shall return comments on the first draft of the report to the contractor	Within 35 business days of receipt of the contractor's first draft.
2.7	The contractor shall provide EPA with the second draft of the report	Within 10 business days of EPA providing comments on the first draft workbook
2.8	The EPA shall return comments on the second draft of the report to the contractor	Within 35 business days of receipt of the contractor's first draft.
2.9	The contractor shall provide EPA with the final report, a 508 compliant print and web version	Within 10 business days of EPA providing comments on the second draft workbook
2.9 a	The contractor shall prepare a print package for the final report.	Within 10 business days of receiving direction from EPA.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-14

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016 Base X Option Period Number	Develop and Delivery of Lean E

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Ele 1, para. 2.2, pg. 5, para. 2.8 pg. 7, Ele 2

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 03/11/2016 To 07/16/2016

Comments:
The purpose of this action is to initiate Work Assignment 0-14. The Contractor shall submit a work plan and budget estimate in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

	Cost/Fee:	LOE:
Contract Period: 07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Jeff Johnson (Signature) (Date)	Branch/Mail Code: Phone Number: 913-551-7849 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

Work Assignment SOW

Work Assignment Title: Support for Development and Delivery of Lean Events, Training, and Workshops for RCRA Corrective Action and Development and Updating of Lean Tools and Case Studies

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: 0-14

Estimated Period of Performance: Date of Issuance to July 16, 2016

Estimated Level of Effort: 375 hours

Key EPA Personnel:

Work Assignment COR (WA COR):
Jeff Johnson
EPA Region 7, AWMD/WRAP
913-551-7849
johnson.jeff@epa.gov

Alternate Work Assignment COR:
Chris Jump
EPA Region 7, AWMD/WRAP
913-551-7141
jump.chris@epa.gov

Contract Level COR:
Cheryl R. Brown
Office of Policy, Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

EPA Regions 3 and 7, along with the help of various state and industry stakeholders, held 2 Lean-Kaizen events which analyzed the RCRA Corrective Action (CA) process. Specifically, these Lean events used value stream mapping to analyze the RCRA Facility Investigation (RFI) (Feb. 2013) and the Remedy Selection Process (RSP) (May 2014). The results from both Lean events were used by EPA to develop a set of tools for RCRA project managers to use which aim to facilitate more efficient RFIs and RSPs. The compendium of these tools is the manual titled RCRA Facilities Investigation Remedy Selection Track (FIRST)—A Toolbox for Corrective Action. Now that the initial Lean events have been completed and the RCRA FIRST manual has been finalized, efforts have further shifted to replicating the approach in other EPA regions and states.

The primary purpose of this work assignment is to assist EPA in planning, developing

materials for, and delivering Lean events via RCRA Corrective Action (CA) trainings (1-day) and workshops/mini-Kaizen events (2-3 days). The 1-day trainings will be conducted by managers and staff from EPA Regions 3 and 7, and OSWER/Office of Resource Conservation and Recovery. In addition to the EPA staff, the 2-3 day workshops/mini-Kaizen events will require the contractor to provide one or more expert Lean facilitators to actively participate in the planning, event delivery, and follow-up after the Lean event. Under this work assignment, at least three (3) years of experience with the Lean process (Lean government) is required, preferably with an environmental agency (State or Federal) including the following:

- Lean concepts, tools and techniques;
- Scoping, planning, facilitating and/or leading projects using the Lean process; and
- Providing post-event support.

1. Trainings (various dates) – EPA anticipates holding a series of 1-day in person training events explaining how to use the RCRA FIRST User's Manual to its fullest extent. The training events will utilize already existing training materials, but will require the contractor to modify them in order to tailor them to the particular audience (e.g., with region and/or state specific information). The 1-day training will be targeted at regions, states, and other stakeholders who are receptive to the RCRA FIRST approach. EPA plans to begin this series of 1-day trainings in May 2016.

2. Workshops (various dates) – EPA anticipates holding one or two workshops/mini-Kaizen events during FY2016 where EPA's RCRA FIRST implementation experts will travel to a region or state along with a certified, expert Lean facilitator(s) who will facilitate/conduct the workshop and engage regional and state staff. These workshops will include examining regional and state Corrective Action procedures over 2-3 days and seamlessly fitting the RCRA FIRST approach into their existing Corrective Action structure. The workshops will be used where participants need exposure to Lean principles and tools, and to help build an understanding about what problems exist in their current corrective action process and how the RCRA FIRST approach can used to address those problems. The first workshop is tentatively planned for May 2016.

Quality Assurance (QA) Requirements:

Check [ ] Yes or [X] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) will review all deliverables in draft form and provide revisions or comments to the Contractor. The

Contractor shall incorporate the comments as specified by WA COR. Final deliverable shall be in Microsoft Word and/or other appropriate electronic format requested for the deliverable.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1 - Prepare Workplan

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within _5_ calendar days of receipt of comments from the Contracting Officer, if required**.**

Task 2 - Develop Training Materials [Section IV, Element 1, para. 2.2 (pg. 5), para. 2.8 (pg. 7); Element 2, all paras. (pgs. 8-9)]

The contractor shall prepare draft and final materials as directed by the COR, in order to support the RCRA Corrective Action Trainings and Workshops/mini-Kaizen events described in Background and Purpose section above. Separate packages of materials will be developed for the one (1) -day Trainings and for the two (2) – three (3) day Workshops.
Such materials may include, but are not limited to:

-- PowerPoint Slides, containing text and visual displays of information
-- Desk-top, computer-based, interactive exercises for participants to use during the training and workshops
-- Pre-work/homework assignments for participants
-- Post-event materials, to promote participants' use of training and workshop results
-- Written talking points, scripts, and instructions to accompany all training and workshop materials
-- Surveys to help assess the effectiveness and quality of an event

Training and Workshop material content shall relate to RCRA Corrective Action as well

as contain relevant Lean content, particularly for the Workshops/mini-Kaizen events.
Deliverables and schedule under Task 2

All products are to be delivered according to the specifications and timeline as directed by the COR:

2a. Draft training and workshop subject matter materials within 30 calendar days of issuing the technical directive.
2b. Revised drafts within 10 calendar days of receipt of comments from the COR on any draft materials.
2c. Final materials and files within 10 calendar days of receipt of comments from the COR.

Task 3 - Provide Planning Support for Lean Workshops/mini-Kaizen events – Including Pre-Work and Scoping Meetings [Section IV, Element 2, all paras. (pgs. 8-9)]
The contractor shall lead pre-work and scoping meetings (via conference call) with the COR, team leaders, appropriate senior managers, and selected participants for each workshop/event. These pre-work and scoping meetings will result in identification of Lean workshop scope, objectives, goals, format, and required data compilation by the participants. As needed, the contractor shall assist the Agency in developing a draft Project Charter and in recommending team members to participate in the Lean workshops. The contractor shall assist in planning, developing agenda, handouts and other materials for the pre-meetings, facilitating the meetings, and providing a summary report.

Deliverables and schedule under Task 3
3a. Kick-off meeting held within five (5) calendar days of being informed of potential Lean workshop/event.
3b. Draft agenda and schedule for scoping meeting within five (5) calendar days of the scheduled scoping meeting.
3c. Scoping meetings that results in the identification of Lean workshop scope, objectives, goals, format, and data compilation needs shall be held within 15 calendar days of project kick-off meeting.
3d. The contractor shall provide a summary report on the scoping meeting(s) within five (5) calendar days after the meeting.

Task 4 – Facilitate Lean Workshops, Provide Coaching, and Post-Lean Workshop Follow-Up Support [Section IV, Element 2, all paras. (pgs. 8-9)]

The contractor shall facilitate up to two RCRA Corrective Action workshops, which EPA anticipates will each consist of two (2) – three (3) day mini-Kaizen events. The workshops will be used to expose participants to Lean principles and tools, and to help build an understanding about what problems exist in their current corrective action process and how the RCRA FIRST approach can used to address those problems. The contractor shall assist in planning, developing, compiling and distributing agenda,

handouts and other materials for each Lean workshop; facilitating the workshop; providing a summary report; and providing follow-up meeting facilitation as deemed necessary for each workshop.
This may include, but is not limited to:

1. Facilitate RCRA Corrective Action Lean workshops/events
2. Provide just-in-time Lean training to help acculturate EPA staff, states, and stakeholders to Lean philosophy, tools and techniques.
3. Coach and mentor EPA Lean workshop Team Leaders and facilitator trainees to include delivery of learning/skill building materials to support the Agency's objective of successfully implementing business process improvement methods.
4. Serving in the capacity of Facilitator to identify and manage change during the Lean workshops.
5. Work with EPA internal staff and management, as well as external stakeholders to develop a visual representation of the specified process flow and resulting improvements.
6. Provide coaching and consultation support to assist EPA and states in implementing action items identified during the Lean workshops.
7. Participate by phone or in person in follow-up meetings to be held after the Lean workshops.
8. Provide a summary report(s).

Deliverables and schedule under Task 4
4a. Draft agenda for Lean workshop within 30 calendar days of the event.
4b. Draft handouts and other materials for each Lean workshop within 20 days of the event.
4c. As directed by the COR, Draft Summary Report of Lean workshop is to be completed within 15 calendar days after completion of the workshop. This may include presentations, current state and ideal state value stream maps and proposed action plan forward.
4d. Final Summary Report of Lean event five (5) calendar days after receipt of revisions from the COR.

Task 5 - Develop Template for Lean Case Studies and Modify Draft Case Studies by Placing into Web-Presentable Format [Section IV, Element 2, all paras. (pgs. 8-9)]
The contractor shall develop a template for EPA RCRA Staff to utilize in the development of Lean case studies that can be posted to EPA's web-site. Once a template is developed, EPA RCRA staff will develop draft case studies that will be forwarded to the contractor. Upon receipt of draft case studies, the contractor shall modify draft case studies by placing them into a web-presentable format.

Deliverables and schedule under Task 5
5a. Draft Lean case study template within 30 calendar days of issuing the technical directive.
5b. Case studies that have been modified into web-presentable format within 10 calendar days after receipt of draft case studies.

Summary of Deliverables and Dates:

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within five_(5)_ calendar days of receipt of comments from the Contracting Officer, if required.

2a. Draft training and workshop subject matter materials within 30 calendar days of issuing the technical directive.
2b. Revised drafts within 10 calendar days of receipt of comments from the COR on any draft materials.
2c. Final materials and files within 10 calendar days of receipt of comments from the COR.

3a. Kick-off meeting held within five (5) calendar days of being informed of potential Lean workshop/event.
3b. Draft agenda and schedule for scoping meeting within 5 calendar days of the scheduled scoping meeting.
3c. Scoping meetings that results in the identification of Lean workshop scope, objectives, goals, format, and data compilation needs shall be held within 15 calendar days of project kick-off meeting.
3d. The contractor shall provide a summary report on the scoping meeting(s) within five (5) calendar days after the meeting.

4a. Draft agenda for Lean workshop within 30 calendar days of the event.
4b. Draft handouts and other materials for each Lean workshop within 20 days of the event.
4c. As directed by the COR, Draft Summary Report of Lean workshop is to be completed within 15 calendar days after completion of the workshop. This may include presentations, current state and ideal state value stream maps and proposed action plan forward.
4d. Final Summary Report of Lean event five (5) calendar days after receipt of revisions from the COR.

5a. Draft Lean case study template within 30 calendar days of issuing the technical directive.
5b. Case studies that have been modified into web-presentable format within 10 calendar days after receipt of draft case studies.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-15

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016 Base X Option Period Number	Enhanced Reporting and Data Vi

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Element 1, para(s) 2.1 and 2.6, page(s) 5 and 7

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 07/17/2015 To 07/16/2016

Comments:
The purpose of this email is to initiate work assignment 0-15. The Contractor shall submit a work assignment and estimated budget in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

	Cost/Fee:	LOE:
Contract Period: 07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Sarah Lehmann (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-1379 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

Work Assignment SOW

Work Assignment Title: Enhanced Reporting and Data Visualization for the National Lakes Assessment

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: **0-15**

Estimated Period of Performance: **Date of Issuance to** July 16, 2016

Estimated Level of Effort: 455 hours

Key EPA Personnel:

Work Assignment COR (WA COR):
Sarah Lehmann
OW, OWOW (4503T)
202-566-1379
lehmann.sarah@epa.gov

Contract Level COR (CL COR): **C**heryl R. Brown
Office of Policy, Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

Numerous reports have identified the need for improved water quality monitoring and analysis at the national scale to more effectively address national and broad regional questions. To address these issues, the U.S. Environmental Protection Agency, states, and tribes conduct a series of surveys of the nation's aquatic resources called the National Aquatic Resource Surveys (NARS). The NARS is made up of four surveys, the National Lakes Assessment (NLA), the National Coastal Condition Assessment (NCCA), the National Wetlands Condition Assessment (NWCA) and the National Rivers and Streams Assessment (NRSA). Information from the NARS is used in the EPA Strategic Plan measures, other Agency reporting and strategic environmental management approaches.

Using a probability-based survey design, the NARS provide nationally consistent and scientifically-defensible assessments of our nation's waters and can be used to track changes in condition over time. Each survey uses standardized field and lab methods and is designed to yield unbiased estimates of the condition of the whole water resource being studied (i.e., rivers and streams, lakes, wetlands, or coastal waters). A key aspect of these data is the ability to extrapolate data from the sites sampled to the entire population of waters because sites are selected using a stratified random design. As part of these

assessments, the EPA has been developing national reports for each of the water resources. These reports have been primarily "traditional" hardcopy/pdf reports. OWOW is interested in using new data visualization techniques to move toward more web-based, informative, and interactive reporting formats and in refining the messaging in more traditional reporting and presentation formats.

The purpose of this work assignment is to provide support in refining messages in the NLA report, presenting data from the national assessments for various audiences, and focusing on techniques that help to illuminate the assessment results and key aspects of the underlying data. Audiences that OWOW is interested in reaching more effectively through improved data presentation include, but are not limited to the EPA management, technical water resource staff/management, and the informed/interested public (e.g., lake associations).

Quality Assurance (QA) Requirements

Check [ ] Yes or [X] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal.

Work Assignment CORs will provide additional information here, if **Yes** is checked above.

Note, the data used under this work assignment is from the National Aquatic Resource Surveys and was collected/analyzed under EPA approved Quality Assurance Project Plans.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverables from the Contractor shall be in Microsoft Word, Tableau, graphical file formats (jpg, gif, png) and/or other appropriate electronic format requested for the deliverable.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1 - Prepare Workplan

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

Deliverables and schedule under Task 1

Deliverables/Activities	Schedule
1a Workplan	Within 15 calendar days of receipt of work assignment
1b. Revised Workplan	Within 15 calendar days of receipt of comments from the Contracting Officer, if required

Task 2 - National Lakes Assessment 2012 Report Support [PWS: Element 1, para(s) 2.1 and 2.6, page(s) 5 and 7]

EPA has prepared a draft National Lakes Assessment 2012 report to convey general information about the NLA and national results (attached with the PWS). EPA will provide a draft copy of the report in Word after work begins for this task. The contractor shall provide the following support:

- proofreading and editing the document for proper grammar and syntax;
- reviewing and recommending edits to language to make sure it is accessible and clear for the intended audience (EPA management and the informed/interested public (e.g., lake associations);
- suggesting revisions to, and where needed, developing new formats/layouts for the report, based on discussions with the WACOR in order to communicate messages effectively;
- adding appropriate and permissible photographs to the document to support messages in the report

2a Conference Calls: EPA and the Contractor shall hold up to five conference calls to discuss the most version of the NLA report, edits and comments received from EPA, partners, other reviewers and/or the contractor depending on where in the revision process the calls are held. It is anticipated that the calls will be two hours and include two to three contractor staff. Topics for the calls (not necessarily all topics on all calls) shall include format issues, refined messaging, editing, photos, and schedules in addition to other relevant items.

2b Editorial Support: The contractor shall provide proofreading and other editorial support for up to three versions of the report. For these versions, the Contractor shall

provide revisions within 10 days following conference calls (2a) or email from the WACOR. The Contractor shall provide proofreading and other editorial support for up to one additional version of the report. For this version of the report, the Contractor shall provide revisions within five days following the conference call or email from the WACOR (the WACOR will make it clear this is the five day turnaround version).

2c Design/Layout: Based on the discussion during an EPA/Contractor conference call, the Contractor shall provide EPA with two to three options for design layout of the report (e.g., general cover design, header and footer layouts, hyperlinking the table of contents and legends, and other style elements etc.) within two weeks of the conference call. EPA will provide comments and request information as needed regarding the formatting options via email and during a call if needed. The Contractor shall provide one additional round of design options within seven days based on those comments/discussions if directed by the WACOR. Once EPA selects a final design/set of design elements, the Contractor shall move forward with the selected option and provide the current version of the report with the design within 10 days.

2d Photos: EPA will provide the Contractor with potential photos to include in the report. During one of the conference calls, EPA and the contractor shall discuss possible photos to be added to the report, review possible photos provided by EPA, and identify whether other photos need to be added to the available selection. After selection of the photos, the contractor shall insert the photos into the report including captions and appropriate credit information.

Deliverables and schedule under Task 2

Deliverables/Activities	**Schedule**
2a. Conference calls	TBD
2b. Revised draft NLA report (three versions)	Within 10 days of discussion with EPA (call and/or email)
2bi. Revised draft NLA report	Within five days of discussion with EPA (call and/or email) and WA COR TD that this is the five day turnaround version
2c. Report Design Layout Draft Options	Within two weeks of discussion
2ci. Second draft set of options	Within seven days of discussion
2cii. Final Design Layout in report	Within 10 days of WACOR approval

Task 3 - National Lakes Assessment 2012 Data Visualization/Graphics [Element 3, para(s) 3, page(s) 11.]

Based on finalization of the NLA graphics, EPA anticipates the need to update the graphics currently included in the draft NLA concise report for each of the indicators. During one of the conference calls (see Task 2b), the Contractor shall discuss with EPA

replacing the current data visualizations/indicator breakout graphics in the draft NLA report with revised versions (for example, including the changes to the width of error bars or other modifications). Upon receipt of WACOR technical direction, the contractor shall deliver in a graphical format (jpg, tif, etc) the updated breakout indicator and risk graphics for the report that are consistent with the graphics developed for on-line NLA reporting/information sharing (e.g., interactive dashboard) and appropriate for the NLA concise report. Once EPA has approved the graphics, the Contractor shall incorporate these graphics into the NLA Report with appropriate heading, captions, etc. Based on EPA feedback, the Contractor shall provide products in Tableau, as static graphics for reporting, and in D3 for website dashboards. The Contractor shall also discuss with EPA development of up to three summary graphics that address specific messaging requirements of the report and/or communications packages. Upon receipt of technical direction, the Contractor shall develop prototype graphics, respond to two rounds of edits for each graphic, and produce a final version of the graphic.

Deliverables and schedule under Task 3

Deliverables/Activities	Schedule
3a. Updated indicator graphics	Within two weeks of discussion
3b. Incorporation of graphics in to report	Within two weeks of EPA approval of graphics
3c. Development of summary graphics	Within three weeks of technical direction.
3d. Revisions/Final summary graphics	Within two weeks of receipt of comments.

Task 4 - National Lakes Assessment 2012 Web Application Support [Element 1, para(s) 2.7, page 7.]

No work shall begin on this task until technical direction is issued by EPA.

The Contractor shall work with EPA to refine the existing NLA 2012 draft interactive D3 dashboard and related data visualization features, as needed based on comments and web requirements. Based on direction from the WACOR, the Contractor shall update underlying data, refine tool tip, help or other text, and/or refine interactive tools. The contractor shall provide up two revisions not to exceed 40 hours.

Deliverables and schedule under Task 4

Deliverables/Activities	Schedule
4a. Revised dashboard (two versions)	Within three weeks of discussion

Final Information -- Summary of Deliverables and Dates:

Deliverables/Activities	Schedule
1a Workplan	Within 15 calendar days of receipt of work assignment
1b. Revised Workplan	Within 15 calendar days of receipt of comments from the Contracting Officer, if required
2a. Conference calls	TBD
2b. Revised draft NLA report (three versions)	Within 10 days of discussion with EPA (call and/or email)
2bi. Revised draft NLA report	Within five days of discussion with EPA (call and/or email) and WA COR TD that this is the five day turnaround version
2c. Report Design Layout Draft Options	Within two weeks of discussion
2ci. Second draft set of options	Within seven days of discussion
2cii. Final Design Layout in report	Within 10 days of WACOR approval
3a. Updated indicator graphics	Within two weeks of discussion
3b. Incorporation of graphics in to report	Within two weeks of EPA approval of graphics
3c. Development of summary graphics	Within three weeks of technical direction.
3d. Revisions/Final summary graphics	Within two weeks of receipt of comments.
4a. Revised dashboard (two versions)	Within three weeks of discussion

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-16

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016 Base X Option Period Number	Lean Startup Facilitation, Tra

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Sect. Elem _2_, para(s) _1 & 2_, page(s) _9

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 07/17/2015 To 07/16/2016

Comments:
The purpose of this action is to initiate Work Assignment 0-16. See the attached SOW. The Contractor shall submit an estimated work plan and estimated budget in accordance with the contract.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

	Cost/Fee:	LOE:
Contract Period: 07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee	LOE:
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Scott Bowles (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-2208 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name: (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

Work Assignment SOW

Work Assignment Title: Lean Startup Facilitation, Training and Coaching Support

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: WA 0-16

Estimated Period of Performance: **Date of Issuance to** July 16, 2016

Estimated Level of Effort: 261 hours

Key EPA Personnel:

Work Assignment COR (WA COR):

Scott Bowles
Office of Policy/OSEM
202-566-2208
bowles.scott@epa.gov

Contract Level COR:

Cheryl R. Brown
Office of Policy,
Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:
The Government Performance and Results Act (GPRA) of 1993 and GPRA Modernization Act of 2010 hold all federal agencies accountable for how they use their resources to achieve results. The U.S. EPA created the Office of Strategic Environmental Management to bring creativity to bear on solving pressing environmental problems and provide leadership, analysis, coordination, and decision-making support to maintain and strengthen EPA's efficiency, effectiveness, and innovation.

Since 2005, the OSEM has been providing support to EPA and its co-regulating State and Tribal partners the use of business process improvement (BPI) approaches such as Lean and Six Sigma to improve administrative and programmatic processes in government. Impressive gains have been made both by EPA and state partners. Since 2013 EPA has completed over 100 projects leading to an average projected reduction in lead time of 50 percent. Since 2010, 21% more of our state environmental partners have reported participating in BPI projects.

EPA is an acknowledged leader in producing BPI and Lean best practices documents and guidance such as the "Lean in Government - A Practical Guide to Implementing Successful Lean initiatives at Environmental Agencies," also known as "The Lean Starter Kit," now in its third edition. EPA has also gained valuable experience developing best

practices and experience which it translates into training, coaching efforts, support methodologies to improve organizational performance and advance innovation.

Most recently, to maximize efforts to modernize the business of environmental protection, EPA developed the Lean and Information Technology Toolkit. This Toolkit explores how Lean and IT can be used to accomplish the following: 1) efficiently design new products and services to better meet customer needs (e.g., Lean Startup); 2) improve the efficiency and effectiveness of existing process (e.g., traditional Lean process improvement); and 3) reduce the costs and risk of developing new IT products (e.g., Agile development).

The purpose of this work assignment is to promote and support a broader scale application and innovative use of the Lean practices and approaches, particularly those in the Toolkit, within EPA and with our state co-regulating partners. This work shall include: 1) delivery of a broad range of Lean and BPI facilitation support, typically Lean Startup facilitation or other hybrid Lean facilitation; 2) providing Lean Startup training and coaching key audience, (e.g., Lean practitioners, executive leaders, etc.); and 3) support communicating and/or highlighting Lean/Lean Startup results, as well as the potential for similar "Lean thinking" innovative approaches.

Expertise required for support of this work assignment include: experience successfully training, advising, coaching, and mentoring both small and large enterprises in applying Lean Startup principles and practices; knowledge and skill in the approaches and application of Lean Startup methods as practiced in a range of professional enterprises; experience applying Agile Development, Lean, or other innovation approaches; and ability to provide communications in written and electronic mediums for high impact reports, presentations, and graphic presentations. Experience advising on Lean Startup, Lean and Agile to federal and state government organizations is highly desirable.

Quality Assurance (QA) Requirements

Check [ ] Yes or [X] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal.

Work Assignment CORs will provide additional information here, if **Yes** is checked above.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverable shall be in Microsoft

Word and/or other appropriate electronic format requested for the deliverable.

The WA COR is authorized to provide technical direction under this work assignment and will follow up any verbal technical direction in writing within five (5) days.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1 - Prepare Workplan

The Contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan **within _10_** calendar days of receipt of comments from the Contracting Officer, if required.

Task 2 - Lean Startup Training, Coaching and Mentoring Support [Section/Element _2_, para(s) _1 & 2_, page(s) _9_]

EPA has developed some basic Lean Startup awareness and guidance materials and approaches to introduce and implement Lean Startup efforts. While these efforts provide a solid foundation for beginning the Lean Startup journey, EPA will benefit from: 1) an expert review of resources developed by EPA; 2) guidance on deploying/implementation of Lean Startup at EPA; and 3) Lean Startup training, coaching and mentoring to EPA staff and managers. The Contractor shall assist EPA in providing (and developing where necessary) Lean Startup materials and training, and providing coaching and mentoring for staff and managers which shall include, but may not be limited to, the following elements of Lean Startup:

- When Lean Startup is an appropriate tool to apply to a project instead of other innovation or lean tools such as Agile, Lean / Six Sigma.
- When Lean Startup should be applied in concert with Agile.

- The most efficient and effective way for EPA managers and staff to develop Lean Canvases for their new projects.
- The most efficient and effective way for EPA managers and staff to develop MVPs (Minimum Viable Products) for their new projects?
- The elements of a Lean Canvas or an MVP that deserve the most attention in terms of validation.
- The most efficient and effective ways for EPA to validate the Lean Canvases and MVPs including empirical testing.
- The most effective way for selecting "customers" or stakeholders for validating elements of the Lean Canvas or the MVP.
- The value large enterprises expect from the Lean Startup approach versus other approaches to new initiatives and innovation.
- The major challenges large enterprises tend to encounter and best practices for overcoming those challenges.
- The best practices for turning a Lean Canvas into a full initiative.
- The best practices for establishing metrics in a Lean Startup context.

The objectives of the Lean Startup materials and deployment review, and training efforts are to: 1) improve the awareness of staff and managers new to Lean Startup; 2) provide project/effort-specific training for individuals who will be involved in or play some role in a Lean Startup projects; and 3) equip staff and managers of with information, skills, and "know-how" to select, create, and support Lean Startup projects. The Contractor shall provide the outlined support cited above, based on technical direction from the WA COR.

Assumptions: For the purpose of estimating support for this task the Contractor shall assume a basic range of review of materials and deployment planning, training, coaching and mentoring, including delivery for up to ten (10) one-hour planning, review and deployment sessions or meetings; forty (40) hours of mentoring or tailored coaching sessions; and up to forty (40) hours devoted to multiple or graduated-length (e.g., 2 or 3 or 4-hour—as determined by audience need assessments) training deliveries. The Contractor shall assume all training and other activity will be in the Washington, DC area. The Contractor should not assume room/facilities acquisition in assumptions.

Deliverables and schedule under Task 2

2a. Kick-off meeting held within ten (10) calendar days of receiving work assignment to discuss with the WA COR the basic outline of material review, deployment methodology, and training, coaching and mentoring needs, as well as, further assessment strategies to deliver a strategic approach to this task in the Workplan.

2b. Within 14 days of Workplan approval, develop and begin assessment of target audience either through interviews, discussions and or other available information (e.g., NPM level feedback) to further assess materials, deployment and training needs, with the aim of further refining/detailing the initial Workplan outline for training, coaching and mentoring.

2c. Provide updated materials and deliver training, coaching, and mentoring to EPA

audiences as directed by the WA COR and based on the assessment efforts, or as opportunities arise (e.g., program and regional office, Senior Executive Meeting, workshops, etc.)
2d. Provide monthly training, coaching and mentoring updates by meeting/conference call training, coaching and mentoring deployment progress including opportunities, challenges, audience need and unmet or met objectives.
2e. Provide summary briefing with recommendations for further training, coaching and mentoring development with at the end of the assignment or prior to expiration to this work assignment.

Task 3 - Lean Startup Project/Event Facilitation Support [Section/Element _2_, para(s) _1_, page(s) _9_]

The Contractor shall conduct Lean Startup facilitation support for up to two (2) one-half (1/2) day Lean Startup facilitation projects/events including preparation, facilitation and follow-up protocols to ensure implementation. The Contractor shall provide the following support, based on technical direction from the WA COR for the Lean Startup project, including: 1) providing pre-event scoping and a summary of the expected facilitation approach, based on the pre-scoping efforts; 2) the facilitation of Lean Startup for the designated project; and 3) a post-event discussion, and/or any appropriate post-event follow up guidance materials (e.g., checklist for follow-through, short summary report, etc.). The Contractor shall assist the designated project/event leader in selecting and/or or identifying team members and/or balancing teams to ensure the success of those who participate in the event, as well as, ensuring the success of the actual event. The Contractor shall assist in planning, development of event documents (e.g., agenda, handouts, and other Lean Startup event and communication templates) for the event.

Deliverables and schedule under Task 3
(for each workshop)
3a. Pre-event meeting held within five (5) calendar days of being informed of Lean Startup workshop need
3b. Draft agenda and schedule for scoping meeting within three (3) calendar business days of the scheduled scoping meeting.
3c. Draft agenda and schedule of the workshop as well as draft materials for handout or presentation at the workshop.
3d. Contractor facilitation of the actual workshop.
3e. A draft report on the workshop and guidance document with recommendations for applying Lean Startup and related practices within 8 calendar days of the workshop.
3f. A final summary report on the workshop and guidance document with recommendations for applying Lean Startup and related practices within five (5) calendar days after receipt of suggested revisions from the WA COR.

Assumptions: For the purpose of estimating support for this task the Contractor shall assume facilitation needs for two (2) project events, each for the duration of one-half

(1/2) day. The WA COR will provide technical direction with specific project details, program office lead and other event information. The Contractor shall assume facilitated events are in Washington, DC. The Contractor should not assume room/facilities acquisition in assumptions.

Summary of Deliverables and Dates:
1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within ten (10) calendar days of receipt of comments from the, if required.

Deliverables and schedule under Task 2
2a. Kick-off meeting held within ten (10) calendar days of receiving work assignment to discuss with the WA COR the basic outline of material review, deployment methodology, and training, coaching and mentoring needs, as well as, further assessment strategies to deliver a strategic approach to this task in the Workplan.
2b. Within 14 days of Workplan approval, develop and begin assessment of target audience either through interviews, discussions and or other available information (e.g., NPM level feedback) to further assess materials, deployment and training needs, with the aim of further refining/detailing the initial Workplan outline for training, coaching and mentoring.
2c. Provide updated materials and deliver training, coaching, and mentoring to EPA audiences as directed by the WA COR and based on the assessment efforts, or as opportunities arise (e.g., program and regional office, Senior Executive Meeting, workshops, etc.)
2d. Provide monthly training, coaching and mentoring updates by meeting/conference call training, coaching and mentoring deployment progress including opportunities, challenges, audience need and unmet or met objectives.
2e. Provide summary briefing with recommendations for further training, coaching and mentoring development with at the end of the assignment or prior to expiration to this work assignment.

Deliverables and schedule under Task 3 (for each workshop)
3a. Pre-event meeting held within five (5) calendar days of being informed of Lean Startup workshop need
3b. Draft agenda and schedule for scoping meeting within three (3) calendar business days of the scheduled scoping meeting.
3c. Draft agenda and schedule of the workshop as well as draft materials for handout or presentation at the workshop.
3d. Consultant facilitation of the actual workshop.
3e. A draft report on the workshop and guidance document with recommendations for applying Lean Startup and related practices within 8 calendar days of the workshop.
3f. A final summary report on the workshop and guidance document with recommendations for applying Lean Startup and related practices within five (5) calendar days after receipt of suggested revisions from the WA COR.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 0-17

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-W-15-011	07/17/2015 To 07/16/2016 Base X Option Period Number	Systems Thinking and Triple Va

Contractor	Specify Section and paragraph of Contract SOW
INDUSTRIAL ECONOMICS, INCORPORATED	Sec. 4:Elemt 1,P4-8;Elemt 3, P9-12;Elmt 4&5,P13-15

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 05/18/2016 To 07/16/2016

Comments:
The purpose of this action is to initiate work assignment 0-17. The contractor shall submit an estimated work plan and an estimated budget in accordance with the contract. See the attached SOW.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
07/17/2015 To 07/16/2016		
This Action:		
Total:		

Work Plan / Cost Estimate Approvals

	Cost/Fee	LOE:
Contractor WP Dated:		
Cumulative Approved:	Cost/Fee	LOE:

Work Assignment Manager Name: Marilyn Tenbrink (Signature) (Date)	Branch/Mail Code: Phone Number: 401-782-3078 FAX Number:
Project Officer Name: Cheryl R. Brown (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0940 FAX Number:
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Stefan Martiyan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1987 FAX Number:

Work Assignment SOW

Work Assignment Title: Systems Thinking and Triple Value Methods for Sustainability Implementation

Contractor: Industrial Economics, Inc. **Contract No.:** EP-W-15-011

Work Assignment Number: 0-17

Estimated Period of Performance: **Date of Issuance to** July 16, 2016

Estimated Level of Effort: 1741 hours

Key EPA Personnel:

Work Assignment COR (WA COR):
Marilyn ten Brink
Office of Research and Development/NHEERL/Atlantic Ecology Division
401-782-3078
tenbrink.marilyn@epa.gov

Contract Level COR: **C**heryl R. Brown
Office of Policy, Immediate Office (1805T)
202-566-0940
brown.cherylr@epa.gov

Background and Purpose:

The purpose of this work assignment is to provide technical support necessary to implement ORD's innovative research on Systems Thinking applications and Triple Value (3V) scoping and modeling cases. EPA Office of Research and Development has piloted innovative methods to engage stakeholders, including communities, Regions, States, and Tribes, in integrating environmental, economic, and societal aspects of systems in order to improve decision-making as sustainability issues and protection of ecosystem services are addressed. These Triple Value (3V) methods enhance shared learning, allow exploration of interactions and feedbacks in complex systems interactions, assist in scenario projections for trade-off analysis, identify data gaps, and incorporate disparate technical knowledge and data.

There are four areas of focus required that will result in further development and promotion of the 3V concepts and tools within the Agency, resulting in better efficiency and effectiveness in addressing sustainability implementation and increasing resiliency. These are: (1) Developing 3V case studies that are comprised of municipal or community-scale sectors and decisions, which is captured in Task 2, Triple Value Community Cases; (2) Research to improve the efficiency and effectiveness of bringing data from external sources into the 3V environment, interoperability of output and

products from 3V cases with other EPA tools, and user accessibility, which is captured in Task 3, Interfacing Triple Value Simulations (3VS); (3) Research to develop conceptual models and cases that address key issues (e.g., climate, water quantity, water quality, integrated materials management, habitat protection) at a watershed or local governance scale, using multi-sector perspectives, which is captured in Task 4, Regional Triple Value Issue Cases; and (4) Support for capacity building, through production of training materials and training in Systems Thinking and in implementation of collaborative Triple Value Scoping and Modeling methods, which is captured in Task 5, Transferability of Systems Approaches.

All tasks of this WA are directly aligned with the primary goal of Contract EP-W-15-011 Statement of Work, as noted the Contract's SOW Introduction. Overall the Systems Thinking and Triple Value Modeling Innovations Research develops new tools and methods for implementing sustainability with stakeholders and across EPA. The Contract SOW Introduction summarizes aligning work: "support the EPA in analyzing, developing, and promoting new tools and approaches for stakeholders across the Agency that will promote better efficiency and effectiveness while addressing issues of increasing complexity, such as integration of sustainability into Agency programs and enhancing resilience to the effects of climate change", especially bullets of Developing implementable strategies to embed new approaches , Identifying promising practices that improve efficiency and effectiveness , Analyzing the potential value of new approaches and tools , Applying promising practices and tools and disseminating information, Supporting an ongoing dialogue among Agency senior management to identify emerging and priority issues; building collaboration across the Agency to address sustainability, programmatic and cross-media issues; and Supporting evaluation of promising practices for better results.

Tasks within this WA SOW are specifically aligned with multiple Contract Level SOW Elements: (1) Planning and Management Support [(1.1) Research, (1.2) Communications, Education and Training];(2) Encourage Broad Scale Application of BIP tools; (3)Support for Evidence-Driven Decision-Making through Evaluation and Program Efficiency [(3.1) Evaluation (3.2) Database Analysis, Data Specification and Evidence Evaluation (3.3) Data visualization and (3.5)Analysis]; (4) Support for Cross-Agency Implementation of the Agency Climate Change Adaptation Plan and (5) Promoting Systemic Organizational Change-Sustainability

Quality Assurance (QA) Requirements

Check [X] Yes or [x] NO, if the following statement is true or false. The Contractor shall submit a written Quality Assurance Project Plan for any project that is developing environmental measurements or a Quality Assurance Supplement to the Quality Management Plan for any project which generates environmental data using models with their technical proposal.

Work Assignment CORs will provide additional information here, if **Yes** is checked

above.

The contractor shall adhere to the following Quality Assurance and Publication requirement of EPA: A Triple Value Project Quality Assurance Addendums shall be in place for each on-going quantitative Regional Case (e.g., Narragansett Bay, Cape Cod, Suffolk Co., Delmarva, Durham). The Scoping phase for each new case shall include preparation of case-specific QA Addendum (see Citation below) following the QAPP and methods developed in the Narragansett Bay Pilot and specified in the "Guidance for Community Case QAPP Addenda for the 3VS Systems Dynamics Model" (09/20/2015). EPA policies for use of secondary data shall be followed. Office of Research and Development Review procedures for Technical Publications will be met prior to public release of products.

Tasks and Deliverables:

The Work Assignment Contracting Officer Representative (WA COR) will review all deliverables in draft form and provide revisions or comments to the Contractor. The Contractor shall incorporate the comments as specified by WA COR. Final deliverable shall be in Microsoft Word, MS EXCEL and/or other appropriate electronic format requested for the deliverable.

Contractor personnel shall at all times identify themselves as Contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the Contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

The Contractor shall not duplicate any work performed previously.

Task 1 - PREPARE WORKPLAN

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, detailed cost estimate by task and a staffing plan. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan.

The workplan shall also address how Quality Assurance will be managed and documented, citing pertinent exiting QA documents. The work plan shall identify any potential conflict(s) of interests and shall build on but not replicate work done previously for EPA under this or other contracts. In developing the workplan, the contractor shall make all best efforts to adhere to the schedule of deliverables below.

Upon approval of the Work Plan, the contractor shall maintain bi-weekly communication with the Work Assignment COR or assigned Technical Expert. Additional task specifics will be provided under Technical Direction. The contractor shall prepare monthly

technical and financial progress report in conformance to the requirement of the contract.

1a. Workplan within 15 calendar days of receipt of work assignment
1b. Revised workplan within 15 calendar days of receipt of comments from the Contracting Officer, if required.

Task 2 TRIPLE VALUE COMMUNITY CASES

Contract SOW Sections:
Element 1 (page 4 para 2): Performance 1 (page 4 para 4 through page-5 para 2) and Performance 2 (page 5 para 3 through page 7 para 3),
Element 3 (page 9 para 4): Performance 1 (page 10 para 4); Performance 2 (page 11 para 1); Performance 3 (page 11 para 2); Performance 5 (page 12 para 2- 6)]
Element 4 (page 13 para 3 through page 14 para2)
Element 5 (page 14 para3 through page 15 para 2)

This Task, "Triple Value Community Cases," Implements Scoping and Modeling Cases at the Community Scale. Decision cases pertaining to Integrated Materials Management, Transportation, Climate resilience, Energy, Net Zero, Green Infrastructure and/or Ecosystem Services will be developed as general cases and for specific cases, such as in 'Make-a-Visible-Difference' Communities. Coordination with ORD's Sustainable and Healthy Community Research Program and the EPA's Cross Cutting Strategy may influence the sequencing and scope of the Decision Cases and Community Cases in this task.

The contractor shall become familiar with the Triple Value Scoping and Modeling methodology and the status of Community Cases initiated previously. The contractor shall build on, but not duplicate, previous development of cases in New Bedford, MA, Durham NC, and Aberdeen Proving Ground, MD to implement these cases. The contractor shall document the process and produce reports on the Community Cases. The contractor shall also evaluate the feasibility for potential additional community cases and prioritize them, these may include, but are not limited to, Sun Valley, CO and Huntington, WV. Technical Direction will be provided as needed during the period of performance for this task. Travel of 1-2 days for site visits for 2-3 people may be necessary.

Deliverables and schedule under Task 2
2a. Deliverables
2.1. New Bedford Integrated Waste Management Final Report (Final, revised, report documenting the New Bedford Case Integrated Waste Management Case. 30-50 pages, MSWORD)
2.2. Aberdeen Proving Ground (APG) Scoping Project Draft Report (Draft, scoping project and outcomes report for Net Zero APG case, Approximately 25 pages plus QA Addendum, MSWORD)
2.3 EPA-IEc team meetings: presentation materials & minutes (powerpoint, MSWORD, EXCEL, Sharepoint formats; documents 1 day prior to meetings and 2 weeks after)

2.4. Community Integrated Systems: 3V Sectors Templates Draft Report (Draft, report characterizing sectors typical of Community Systems and discussion of modular applications in 3V cases, 15-20 pages, MSWORD)

2b. Schedule

2.1. New Bedford Integrated Waste Management Final Report (due June 1, 2016)
2.2. Aberdeen Proving Ground Scoping Project Draft Report (due July 1, 2106)
2.3 EPA-IEc team meetings: presentation materials & minutes (due monthly)
2.4. Community Integrated Systems: 3V Sectors Templates Draft Report (due June 1, 2016)

Task 3 - INTERFACING TRIPLE VALUE SIMULATIONS (with models, data, and users)

Contract SOW Sections:
Element 1 (page 4 para 2): Performance 1 (page 4 para 4 through page 5 para 2) and Performance 2 (page 5 para 3 through page 7 para 3)
Element 2 (page 8 para 2 through page 9 para 2)
Element 3 (page 9 para 4): Performance 2 (page 11 para 1); Performance 3 (page 11 para 2).
Element 4 (page 13 para 3 through page 14 para 2)
Element 5 (page 14 para 3 through page 15 para 2)

The contractor shall develop methods and protocols for interfaces that allow data to be imported to 3VS from other models, data and functions to be exported from 3VS to other applications, and users to easily set 3VS model parameters and to receive useful model outputs. Although generally applicable methods are desired, customized methods may be developed and tested for specific Issue or Community Cases by the contractor. The contractor shall coordinate with Federal, State, and Regional data sources and existing EPA modeling tools when necessary. The contractor shall insure that Beta testing, user-friendly software, and user guide(s) are components of interfacing 3VS with users. Technical Direction will be provided as needed during the period of performance for this task. Travel of 1 day for site visits for 1-2 people may be necessary.

Deliverables and schedule under Task 3
3a. Deliverables
3.1 Inventory of data types, models, and sources for Federal and State Partners appropriate for interfacing with 3VS (EXCEL inventory, annotated and incremental
3.2 Durham Light Rail (DRL) user interface (Beta, compatible with DLR model and its QAPP) and generic user interface builder (through collaboration with the EPA Environmental Measurements Visualization Lab, EMVL), incorporating user feedback and documenting uncertainty
3.3 Status Report on 3VS model interfacing. (strategic plan and progress, MSWORD document)

3b. Schedule
3.1 Inventory of data types, models, and sources for Federal and State Partners appropriate for interfacing with 3VS (due June 15, 2016)
3.2 Durham Light Rail user interface (due June 1, 2016)
3.3 Status Report on 3VS model interfacing. (due July 15, 2016)

Task 4 - REGIONAL TRIPLE VALUE ISSUE CASES

Contract SOW Sections:

Element 1 (page 4 para 2): Performance 1(page 4 para 4 through page 5 para 2) and Performance 2 (page 5 para 3 through page 7 para 3),
Element 3 (page 9 para 4: Performance 1 (page 10 para 4); Performance 2 (page 11 para 1); Performance 3 (page 11 para 2); Performance 5 (page 12 paragraph 2-6)
Element 4 (page 13 para 3 through page 14 para 2)
Element 5 (page 14 para 3 through page 15 para 2)

The contractor shall utilize the Triple Value Systems Modeling methodology to explore environmental management issues for geographically bounded cases that are priorities for EPA Regions. Regional Issue Cases have been initiated for Regions 1, 2, 3 and 10 that address Nitrogen management, Climate Resilience, Land Use, Water management, Cultural Preservation, and Environmental Justice. The contractor shall implement each component of the 3VS Scoping or Modeling Regional Case at times appropriate for the Region's schedule. Case components that the contractor shall address are listed here: Scoping VS projects are comprised of stakeholder identification, development of work teams, collaborative problem formulation, development of conceptual models and causal loop diagrams (CLD), identification and evaluation of data sources, vetting with decision makers, and writing associated documents. Quantitative 3VS projects utilize outputs from Scoping projects and build a systems dynamics model from CLDs, data needed to quantify the stocks and flows within the model, and priority management options. Scoping and Quantitative model development includes exploring 'what if' scenarios that are appropriate for the issue, geographic location, decision-makers, and stakeholders. Travel of 1-2 days for site visits for 3 people may be necessary.

Technical Direction will be provided as needed during the period of performance for this task

Deliverables and schedule under Task 4

4a. Deliverables

4.1 Snohomish Watershed 3VS Scoping Project Final Report (Report documenting the Snohomish 3V scoping project and outcomes, Approximately 25 pages plus QA Addendum, MSWORD.)
4.2 Suffolk County Nitrogen 3VS Scoping Project Draft Final Report MS Word Document (Draft, Report documenting the Suffolk County 3V scoping project and outcomes, including QA Addendum update. Approximately 25 pages, MSWORD)
4.3 Cape Cod 3VS Phase 2 Causal Loop Diagram and draft documentation (Documentation of Cape Cod 3VS Phase 2 CLD content and data availability assessment.)
4.4 EPA-IEc team meetings: presentation materials & minutes (powerpoint, MSWORD, EXCEL, Sharepoint formats; documents 1 day prior to meetings and 2 weeks after)

4b. Schedule

4.1 Snohomish Watershed 3VS Scoping Project Final Report (due June 1, 2016)

4.2 Suffolk County Nitrogen 3VS Scoping Project Draft Final Report MS Word Document (due July 15, 2016)
4.3 Cape Cod 3VS Phase 2 Causal Loop Diagram and draft documentation (due May 15, 2016)
4.4 EPA-IEc team meetings: presentation materials & minutes (due monthly)

Task 5 -TRANSFERABILITY OF SYSTEMS APPROACHES

Contract SOW Sections:
Element 1 (page 4 para 2): Performance 1 (page 4 para 4 through page 5 para 2) and Performance 2 (page 5 para 3 through page 7 para 3)
Element 2 (page 8 para 2 through page 9 para 2)
Element 3 (page 9 para 4): Performance 1 (page 10 para 4), Performance 2 (page 11 para 1); Performance 3 (page 11 para 2); Performance 5 (page 12 para 6).
Element 4 (page 13 para 3 through page 14 para 2)
Element 5 (page 14 para 3 through page 15 para 2)

The contractor shall develop materials, trainings, and publications about Systems Thinking, Systems Modeling, and Triple Value Simulation Model Construction. These products should be appropriate for use and outcomes that increase the capacity of EPA staff and Partners for understanding Sustainability concepts, incorporating Sustainability Pillars in their work, and applying 3VS tools to integrate multi-disciplinary components into policy exploration and innovative, systems-based, decision-making. The contractor shall develop materials and trainings that are available as introductory through complex types, and deliver to intended users according to an outreach plan that is responsive to ORD and EPA Regional 3VS collaborators. Travel of 1-2 days for site visits for 3 people may be necessary, including international travel for expert.

Technical Direction will be provided as needed during the period of performance for this task

Deliverables and schedule under Task 5
5a. Deliverables
5.1. Regional Systems Thinking and Modeling Training curriculum and course materials (Powerpoint presentation(s) and workshop training for one or more Regional project or stakeholder group)
5.2 Triple Value Quantitative Systems Modeling Methods Guide, Draft Report (Methods guide, or Roadmap, to document and train practitioners in implementing a quantitative model upon completion of a Scoping model. Approximately 50 pages, MSWORD.)
5b. Schedule
5.1. Regional Systems Thinking and Modeling Training curriculum and course materials (due July 15, 2016)
5.2 Triple Value Quantitative Systems Modeling Methods Guide, Draft Report

(due July 15, 2016)

Summary of Deliverables and Dates:

TASK 1. Workplan Development

1a. Workplan within 15 calendar days of receipt of work assignment.
1b. Revised workplan within 5 calendar days of receipt of comments, if required.

TASKS 2, 3, 4, and 5.
The Deliverable Number and Name are shown below (section a) followed by the deliverable due date (section b) to its right.

(a) TASKS 2 through 5 DELIVERABLES	**(b) Due Date**
Task 2. Triple Value Community Cases	
2.1 New Bedford Integrated Waste Management Final Report	June 1 2016
2.2 Aberdeen Proving Ground Scoping Project Draft Report	July 1 2016
2.3 EPA-IEc team meetings: presentation materials & minutes	monthly
2.4 Community Integrated Systems: 3V Sectors Templates Draft Report	June 1 2016
Task 3. User Interface Development	
3.1 Inventory of data types, models, and sources for Federal and State Partners appropriate for interfacing with 3VS	June 15 2016
3.2 Durham Light Rail user interface	June 1 2016
3.3 Status Report on 3VS model interfacing	July 15 2016
Task 4. Regional Triple Value Issue Cases	
4.1 Snohomish Watershed 3VS Scoping Project Final Report	June 1 2016
4.2 Suffolk County Nitrogen 3VS Scoping Project Draft Final Report	July 15 2016
4.2 Cape Cod (Barnstable County) 3VS Phase 2 Causal Loop Diagram and draft documentation	May 15 2016
4.4 EPA-IEc team meetings: presentation materials & minutes	monthly
Task 5. Innovations in Integration and Transferability	
5.1 Regional Systems Thinking and Modeling Training curriculum and course materials	July 15 2016
5.2 Triple Value Quantitative Systems Modeling Methods Guide, Draft Report	July 15 2016

QA Addendum

Guidance for Community Case QAPP Addenda for the 3VS Systems Dynamics Model

When EPA approved the quality assurance project plan (QAPP)[1] for the expansion of 3VS work from Narragansett Bay to additional regional cases, it was recognized that additional case specific information would need to be added to the QAPP. These addenda will need to be approved by the IEc Project Manager, QA Manager, and the EPA Director of QA, as was done with the original version of the QAPP. If desired, a full QAPP may be prepared for a specific case study.

Currently the following addenda and QAPP have been prepared:
Narragansett Bay, updated Final Report with QA Addendum
Cape Cod, MA Phase 1 Report with QA Addendum
Delmarva, Phase 1 QA Addendum
Suffolk Co, Phase 1 QA Addendum
Durham, NC full NERL QAPP

The addenda should make appropriate replacements for any instances of references to the 3VS-Narragansett project[1] and should specifically include and/or update the following information:

1. Name of case study
2. Distribution List
3. Problem Definition and Background, including:
    - the decision context in which the model is being applied,
    - geographic setting,
    - the range and types of impacts to be explored, and
    - site specific data that may be available
4. Exhibit 1 Project Personnel
5. Exhibit 2 Project Schedule
6. Exhibit 3 Types of Data to be Used in Model
7. Exhibit 4 Model Input Characterization and Assessment
8. Acceptable model calibration criteria
9. A description of model outputs that allow for appropriate structure tests
10. Reports to Management

[1] Planning and Management Support for Innovative Application of Systems Thinking to Nutrient Reduction in the Watersheds: Regional Cases, September 18, 2013; EPA Contract No. EP-W-10-002, Work Assignment 3-60